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American Aviation

35c *The Air Industry's Pioneer Independent Magazine* **Sept. 1, 1949**

Merchandising Counts

THE NATION'S department stores are among the smartest merchandisers in the world. By attractive advertising, by appealing window displays and convenient shopping locations, their first objective is to get the prospective customers into their stores. Once that first step is achieved, the sale of merchandise usually takes care of itself with the help of counter displays, departmental arrangements and all the other techniques of good salesmanship.

by W. W. P.

Any smart retailer knows that if he charged admission to his store he wouldn't get very many patrons. That simply wouldn't be good salesmanship. The admission is not only free, but every possible inducement is made to get the public inside the doors. A customer isn't a customer until he's inside the tent.

The automobile posed no real problem for the downtown merchant until it became so numerous that parking presented a problem. The nickel parking meters aren't much of a factor, in themselves, but nickel parking places are now difficult to find because there are too many automobiles. Thus the parking lot with charges of from ten to twenty-five cents and sometimes more for the first hour have come into existence. In days of easy money people don't mind spending pocket money for parking.

But the downtown merchants sensed some years ago that something had to be done. Hence the trend toward suburban stores with ample free parking space. Even in some downtown areas the stores built free or low-cost parking space at great expense—because it was important—in fact, essential—to make it easy for the public to come into the store.

The airlines used some such salesmanship in attracting first riders. Everyone knows that it's that first flight that counts—one flight and the person is usually sold for good. The "wives free," the family fares, the Sunday hops, and various other inducements have had but one objective—get the person on the airplane *once*, and he's a customer from then on.

The airports are going to have to study merchandising methods or all of the talk about boosting ... will be meaningless.

(Continued on Page 8)



EAL's Operations Veteran

S. L. Shannon, vice president-operations for Eastern Air Lines, has been awarded a 20-year "Hat in the Ring" pin by Capt. E. V. Rickenbacker, EAL president. Shannon joined Pitcairn Aviation, one of Eastern's predecessor companies, as field manager, pilot and chief dispatcher at Richmond, Va., and progressed to his present position by November, 1938. He is also a member of Eastern's board of directors.

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REFERENCE COPY

OTHER AMERICAN AVIATION PUBLICATIONS

AMERICAN AVIATION DAILY OFFICIAL AIRLINE GUIDE AMERICAN AVIATION DIRECTORY



The Birdmen's Perch

By *Major Al Williams*, ALIAS, "TATTERED WING TIPS,"
Manager, Gulf Aviation Department, Gulf Bldg., Pittsburgh 30, Pa.



Saw a couple news stories we liked.

One's about a Wyoming married couple who were planning a big night. But they had kids to be taken care of, and every sitter in town was busy. They got on the phone and located an "at liberty" sitter in a town some miles away.

They cranked up their putt-putt, flew after her, she sat, the next day they flew her back home!

Second story's about a Missouri farmer's wife who was sick and had two aching teeth. The roads were so badly bogged in mud that they couldn't be used. So the farmer cranked up *his* putt-putt, picked up the dentist at the airport in town, flew him out to the farm, saw the teeth pulled, flew him back to town.

Elapsed time: *Less than an hour!*

There are two ways to convince people that you're an expert pilot.

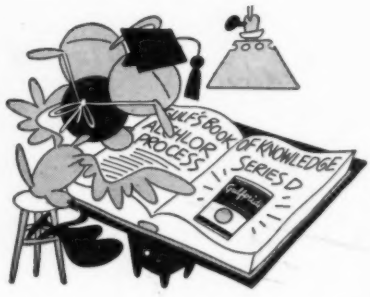
One way is to fly like one—the other is to talk like one!

The way to talk like one is to pick out some subject such as lubrication, and speak learnedly about it.

You could casually mention, for instance, that the reason Gulfpride Aviation—Series D—is the world's finest detergent dispersant oil for horizontally opposed engines is because it's the only lightplane engine oil that's Alchlor-processed. (That's an extra refining step that gets extra nonlubricating impurities out of the oil.)

Or you might point out that Gulfpride Aviation—Series D—frees stuck rings and valves and keeps them free longer. And that it's raised overhaul periods by hundreds of hours.

Or talk to the hangar gang about how Gulfpride Aviation—Series D—is a detergent dispersant oil which cleans inside engine surfaces and holds the dirt in suspension until an oil drain.



Of course, if you can combine this expert talk with expert flying . . . then, by golly, *you are an expert!*

And you don't have to convince nobody of nothing!

LITTLE KNOWN FACTS DEPT.

No Little Known Fact About Well Known Planes is official until it appears on this page!

What's more, no other page gives genuine, looks-like-engraving, curlicue-letters-and-bank-note-ink commissions as Perch Pilot (bottom rung) for Little Known Facts!



So if anyone whispers, "S-s-st! Want to hear a Little Known Fact, etc., etc.," make him show you his commission. If he hasn't got it, he's an imposter and should be shot, stabbed, kicked, beaten, and snubbed.

But that doesn't go for W. F. Bennett, Manager of Chatham Flying Services, Chatham, Mass. Because he sent the following Fact (including proof!), and his commission's on the way:

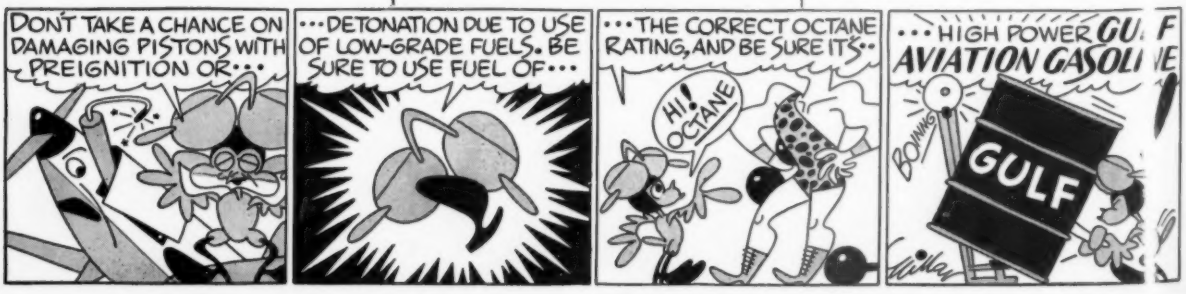
"*The fuel load for one hour of full-power operation of the XS-1 would amount to 42 tons!*"

Okay. How about one from *you?*

Address above.

Gulf Oil Corporation and Gulf Refining Company . . . makers of

GULF **GULF AVIATION PRODUCTS**





GOODYEAR
AVIATION
PRODUCTS



Now a rubber runway for the B-50

TO solve the problem of handling the giant B-50 Boeing Superfortress on unimproved fields, Goodyear, in cooperation with Boeing engineers, has developed a radically new retractable landing gear — the world's first track-tread landing gear for a heavy four-engine bomber. This unique gear multiplies the practical operating field of giant planes because it increases the footprint area three times that of the conventional landing gear of the B-50. Interesting design features include the use of endless rubber belts, reinforced with steel cable, running over a series of floating bogies controlled by a battery of four Goodyear Single Disc Brakes on each main track — *the entire assembly furnished by Goodyear!* This revolutionary landing gear for giant bombers is another of the many Goodyear-built products which have spurred aviation progress for the past forty years.

Goodyear, Aviation Products Division
Akron 16, Ohio or Los Angeles 54, California

MORE AIRCRAFT LAND ON GOODYEAR TIRES, TUBES, WHEELS AND BRAKES THAN ON ANY OTHER KIND

News in Brief

Nine-hour Stratocruiser service between New York International Airport and Seattle-Tacoma International Airport will be inaugurated by Northwest Airlines on Sept. 1. Stops will be at the Twin Cities and Spokane.

Helicopter Air Service of Chicago inaugurated the nation's second certificated helicopter mail route on Aug. 22. Company has six Bell 47-D's and operates an initial service of 12 shuttle trips daily between Chicago Municipal Airport and the roof of the main downtown Post Office. Service will be expanded to include 40 suburban communities. Los Angeles Airways has operated similar service for about two years.

Yellow Cab Co. of Cleveland, Inc. has been ordered by CAB to show cause why its unactivated feederline certificate shouldn't be revoked. The company, awarded its certificate on Sept. 3, 1947, was one of six ordered by CAB last March to begin operations by June 1 and is the only one of the six which has not satisfactorily indicated its intention to open service.

United Air Lines has started negotiations with Douglas Aircraft Co. for purchase of five additional DC-6's. Cost is expected to approximate $4,329,800. Purchase will increase UAL's DC-6 fleet to 44, with deliveries starting next March.

Airport lighting projects received a welcome stimulant on Aug. 18 when President Truman signed into law a measure increasing from 50% to 75% the U. S. share of the cost of installing high intensity lighting on CAA-designated instrument landing runways.

American Overseas Airlines on Aug. 17 transferred operations from LaGuardia Airport to New York International Airport (Idlewild), following recent settlement of the two-year dispute between the airlines and the Port of N. Y. Authority. AOA is operating two Stratocruiser round-trips weekly between N. Y. and London and will double this number in September. Pan American Airways is operating daily trans-Atlantic Stratocruiser service out of Idlewild.

Price of the Ryan Navion has been cut to $10,985 by Ryan Aeronautical Co. The $1,000 reduction was made possible by distributor acceptance of a smaller commission on gross sales.

Northwest Airlines reports a July net profit after taxes of $673,584, giving the company a net of $1,104,500 for the first seven months. August was expected to show similar favorable results.

A $12,000,000 loan has been made to TWA by the Mellon National Bank and Trust Co. of Pittsburgh to pay for the fleet of 20 new-type Constellations the airline has on order for delivery next year. Loan is secured by a first mortgage on the new fleet and a second lien on other TWA property.

Northrop Aircraft and LaMotte T. Cohu are charged with breach of contract and breach of confidential relationship in suit filed by Jack Frye, former president of TWA and now head of General Aniline & Film Corp. The suit, filed in the District Court, Central Division, Southern District of California, charges that Cohu and Northrop failed to give Frye credit for the conception of a new type of cargo plane (the three-engined Northrop Pioneer) and neglected to pay him a 1% royalty agreed upon. The suit seeks $100,000 for damages and $165,000 additional for alleged failure to pay royalties.

Eugene E. Wilson has resigned as chairman of the board of governors of the Aircraft Industries Association. In his letter to the board, Wilson stated that his resignation was in the best interests of AIA membership, "having in mind the forthcoming publication of my book, **Slipstream.**"

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THUNDERJETS OVER AMERICA

Way down yonder . . . high above cotton fields and tobacco lands . . . more F-84's are going into active service daily . . . broadening the protective scope of our U.S. Air Force patrols. ¶ *Two new models of the*



Thunderjet . . . the F-84-D . . . and the F-84-E . . . have been added to the Air Force's fighter arm . . . bringing even greater performance in speed, range and altitude for air defense . . . and for quick retaliation in case of need. ¶ *Not just an interceptor nor an escort fighter . . . but also a deadly fighter-bomber, carrying two thousand pounds of bombs, high velocity rockets, depth charges or incendiaries . . .*





in addition to a FULL load of fuel for any required mission . . . this is the THUNDERJET. ¶ *Today, F-84's protect the vast Southern waterfront with its inland cities and farmlands . . . just as they are assigned to help guard our East and West Coasts and Northern boundaries. Proficiency of pilots and planes alike is kept razor sharp by*



frequent maneuvers . . . high-lighting the tactical requirements of independent air operations, as well as performing vitally important close support assistance to Army Ground Force troops. . . . . Republic Aviation Corporation, Farmingdale, L. I., New York

"This is the year of the Thunderjet"

REPUBLIC AVIATION

Makers of the Mighty Thunderbolt · Thunderjet · XR-12 · XF-91

BACKGROUND & TRENDS

Among the Airlines

Possessing no aircraft smaller than Convairs, **American Airlines** has asked CAB to reconsider its recent ruling which would force airlines to retain or acquire smaller types of aircraft to meet certificate obligations at small airports. American pointed out that compliance with the ruling would mean acquisition of aircraft it does not now have—such as the DC-3—together with necessary parts and maintenance facilities. The problem has developed from an unsuccessful request by American to suspend service temporarily at Jackson, Mich., and Abilene, Tex., because its Convairs cannot be safely operated into the airports there. . . . As an economy measure, **Trans World Airline** is planning the suspension of direct international service for four U. S. cities during coming winter months. Origin and termination of overseas flights will be discontinued at Philadelphia and Washington on Sept. 25, and at Chicago and Detroit on Nov. 1. Schedules at these cities probably will be resumed in early spring when delivery of new Constellations will make possible increases in all TWA international flights.

Northwest Airlines is considering the serving of drinks aboard domestic Stratocruiser flights, if it can solve legal problems with the various states. . . . **E. W. Wiggins Airways** is another non-operating feederline expected to start service soon with single-engined equipment. Adaptability of several plane types to airports on the New England routes is now being studied. . . . The temporary feederline certificate originally issued to **Iowa Airplane Co.** has been reissued to reflect the change in corporate name to **Mid-West Airlines, Inc.**

CAA Airport Use Survey

An air terminal facilities use survey is being made at 30 selected airports for the Research and Analysis Section of CAA's Office of Airports. Aim is to determine relationship between passenger volume and the usage of terminal facilities such as ticket counters, restaurants, lavatories and parking areas. Results will constitute a guide to cities as to their need for terminal facilities, a guide to CAA in the spending of Federal funds for such facilities, and a guide to engineers and architects in the planning of such facilities. Airport employes, airlines personnel and CAA field agents are cooperating in the survey, which will be completed about mid-September.

On-Time Records

While the scheduled airlines have made considerable improvement in on-time regularity, the industry apparently has not made the most of selling this improvement to the public. Airline management has been requested by the Air Transport Association to cooperate in a program of better record keeping of "on time" and "delayed" flight operations. Milton W. Arnold, v.p.-operations and engineering for ATA, informed company officials that failure of some carriers to keep detailed records on schedule performance has embarrassed ATA in its attempts to provide accurate answers to the press and Congressional committees.

Price Conscious Industry

Aircraft manufacturers are now in the most competitive and price conscious period in the industry's history, according to Robert E. Gross, Lockheed president. Describing the competition for military business as on a "dog eat dog" basis, Gross expressed belief that in the commercial field the price element is even more acute. Gross told employes that Lockheed obtained its recent order for 20 more Constellations from TWA "the hard way—by cutting our price more than $100,000 a unit."

Navy Pilots Warned on 'Buzzing'

Navy pilots have been warned by Admiral Louis E. Denfeld, Chief of Naval Operations, that they are liable to imprisonment and dishonorable discharge for "buzzing" civil aircraft or residential areas. The warning resulted from the July 30 collision of a Navy fighter with an Eastern Air Lines DC-3 near Fort Dix, N. J. Denfeld said approximately 75% of aircraft accidents are attributable to pilot error, adding that existing safety regulations are "adequate" if pilots observe them.

International Notes

Twenty-four of 59 airplanes scheduled for exhibition at the 10th annual **Society of British Aircraft Constructors** display this month are powered by gas turbine engines. Of 12 planes making their first appearance at the show, none are powered by reciprocating engines. . . . **Ethiopian Air Lines** is reported to be negotiating with The Glenn L. Martin Co. for purchase of two Martin 2-0-2 transports. Exchange difficulties are said to be holding up completion of the deal.

Prospects for sale of the Lockheed F-80 jet fighter in South America are not bright, despite Air Force approval of such deals. Lockheed is trying to sell some to Brazil, but authoritative sources in that country indicate that Brazil will not buy any, at least this year. One reason is the dollar shortage, another that Brazil does not feel the need for arming. A third, and probably most important reason, is that Brazil feels that jet development is so rapid that it prefers to wait and acquire some later types.

China National Aviation Corp., in which Pan American Airways holds a 20% interest, has suspended all operations following the requisitioning of its main overhaul shops at Kaitak Airport, Hong Kong, under emergency regulations for defense of the Crown Colony against approaching Chinese communist armies.

People

John E. Slater, chairman of the board of American Overseas Airlines until resigning last November, has been elected president of American Export Lines to succeed the late William H. Coverdale. Slater has been executive v.p. of AEL.

Victor E. Bertrandias, vice president and director of foreign sales for Douglas Aircraft, has resigned from the company. He has not revealed future plans. Another Douglas veteran, **John M. Rogers,** has resigned his post of v.p. and director of military sales. Rogers, who has been with Douglas for 18 years, continues to serve on a part-time basis as consultant. . . . **Kenneth P. Bowen,** formerly assistant general manager of Fairchild Aircraft Division at Hagerstown, Md., becomes assistant v.p. of Northrop Aircraft on Sept. 5. He will be assigned to the office of B. G. Reed, Northrop v.p. in charge of production.

W. E. (Dusty) Rhoades, engineering test pilot for United Air Lines, received a silver trophy from airlines of the Air Transport Association at a surprise dinner in Los Angeles in recognition of his work when he was director of Air Navigation Control for ATA. . . . **Clarence F. Cornish,** a former president of the National Association of State Aviation Officials, has been reappointed director of aeronautics for Indiana for a four-year period. . . . **Kenneth R. MacDonald,** manager of the San Francisco Chamber of Commerce's aviation department for five years, has left the Chamber's employment. Because of restricted budget, the Chamber has closed its aviation department and is absorbing some of the activities in other units.

Here are just a FEW of the reasons why this

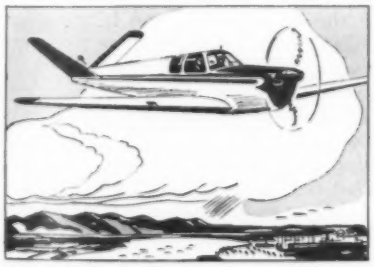
Beechcraft

BONANZA is a better buy!



Ruggedness plus Speed . . . Performance plus Economy . . . Beauty plus Power

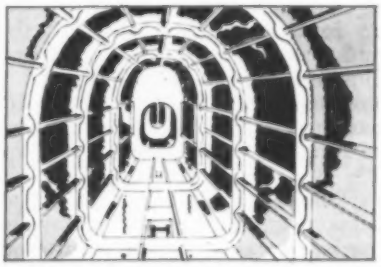
The Beechcraft Bonanza's high payload, high speed, and low operating cost, combined with extra safety and greater comfort, make this Beechcraft a better buy! It's easy to enter or leave the 4-place Beechcraft Bonanza with its unique retractable step and wide auto-type door. Plenty of room for four big people to ride in uncrowded comfort. Maximum 5-way visibility and sound-proofing of the smartly appointed cabin add to the limousine luxury of this outstanding airplane.



High Performance—At 8000 feet the Beechcraft Bonanza cruises at 170 mph using only 56% of the engine's maximum rated take-off power.
No engine overload, so you get extra speed with an extra margin of safety. Take a look at the Beechcraft list of guaranteed performance figures for the Bonanza.



...Plus Economy—Because of lack of engine overload you get lower maintenance costs and longer service life. Beechcraft Bonanza travel means you get an *extra low* per mile operating cost, an *extra low* fuel consumption of 9½ gallons per hour at cruising speed. You *save*, with a Beechcraft Bonanza.



...Plus Safety—Extra ruggedness of the sturdy framework means an extra margin of safety. Rated in the *utility* category at *full gross weight*, with a limit flight load factor of 4.4 G's, the Beechcraft A35 Bonanza has been subjected to dive tests by radio control at 275 miles per hour and pulled out safely at 3 G's.

Compare these performance features	Compare these comfort features
Top speed, 184 mph	Exclusive retractable step
Cruising speed, 170 mph	Limousine entrance
Range, 750 miles	Insulated, sound-proofed cabin
Service Ceiling, 17,100 feet	Quickly removable rear seat
Fuel economy, 9½ gal. per hour	Luggage compartment accessible two ways

These are only a few of the reasons why the Beechcraft Bonanza is a better buy! *See* it today! A note on your company letterhead will bring illustrated brochures describing the Beechcraft Bonanza's many *extra* advantages. Write to Beech Aircraft Corporation, Wichita, Kansas, U.S.A.

Beechcraft

BONANZA MODEL A35

BEECHCRAFTS ARE THE AIR FLEET OF AMERICAN BUSINESS

EDITORIAL

(CONTINUED FROM PAGE 1)

Everyone in the aviation business wants to find new and better ways of obtaining money without having to soak the airlines and other users of the runways. But some of the airport people, who admittedly are not merchandisers, want to start soaking the public before the public ever gets into the building.

The growth of parking charges at airports is one of the most dangerous developments since the war. There is no faster way to keep the public from patronizing an airport than to charge him admission. He may come once, but it's the repeat business that builds up revenues. Lure him into buying and spending inside, sure, but let him into the building without having to fork up anything from a nickel to a quarter for the privilege. The truth is, the public simply won't patronize the airport and the airport will get its revenues only from those who have to come to the field. Especially when that free spending money gets tight—and it's getting tight now.

It is ironical that airports, which are located far outside congested downtown areas, are doing by badly-informed choice, the very thing that cities have *had* to do downtown out of necessity, viz., to charge to discourage traffic.

Airports have three classes of automobile parking to handle. One is employee parking which should be handled without charge and away from the public parking areas. Employees should not be permitted to park in areas adjacent to the terminal building but on the other hand they shouldn't be charged. Then there is the automobile traffic for passengers. This is the 30 minute or 1 hour close-in parking, for which some small charge can be justified if space is limited. Then there is the public parking—the public that can go a long way toward supporting an airport. And any charge for this parking is the surest way to keep down revenues inside the terminal.

Washington National Airport has installed 32 parking meters in the circle immediately in front of the terminal. Five cents for one hour. But it has 4,500 free parking spaces a short distance away. If Washington National had concessions comparable to its foresightedness in attracting the public, it would have no financial worries whatever. Its parking concept is sound.

Extremes in the other directions are Miami International Airport and Chicago Municipal Airport. At Miami there is no choice unless you park outside the airport boundaries—you pay a dime every hour on a 24-hour basis. Even with the finest restaurant facilities in the world, the dime-an-hour charge is a costly handicap. Chicago's nick is a quarter minimum, if we recall correctly, which means that Chicago gets only the patronage that *has* to use the airport or the one-shot sightseers. The New York Port Authority functions on the thesis that nothing is free—you pay for everything except the privilege of sitting on a wooden bench.

One of our friends is among the best airport managers in the world. When it comes to fire equipment, communications, police protection, keeping the floors clean, directing ramp operations and the like, he's at the top of the class. But he is one of the worst merchandisers in the world. He would rather nick somebody a nickel or a dime to get into the terminal than to collect the dollars the customer spends painlessly after he is inside. The result is that he isn't getting the dollars and can't understand why the nickels and dimes don't pay off.

So we say to the airport people, it's highly commendatory to think in terms of increasing non-aviation revenues, but to do so without following good merchandising procedures is to put up a barrier to volume revenue. No retailer would think of running a business the way some airports think it can be done. The public will spend if the entrance is attractive and free, and if the concessions inside are in the repeater class. A top-flight merchandiser of food like Jimmy Dobbs of Dobbs Houses has shown more than one airport the way to big money. It can be done—but nicking the customer before he gets into the tent won't do it.

No Poor Men Wanted

IF THERE was any more evidence needed that the airline business today is for those who have the mazoola to keep pouring in the chips, one need look no further than the exhibits which Pioneer Air Lines filed with the examiner in the hearing for the renewal of Pioneer's certificate. Three volumes of 904 pages and weighing 12½ pounds comprised this one airline's exhibit. While it was doubtless not necessary for Pioneer to go to that extreme in working up exhibits for its case, it hammers home quite thoroughly that the CAB has done nothing whatever to ease the cost burdens of defending or participating in a CAB action.

A little operator hasn't a chance in a big-time case, where the cost of participation may run up to $100,000. Those who are on the "outside" trying to get in have, naturally, a very difficult task. The airlines who are "in" cover the legal expenses, by and large, by their over-all operations. But in any event the legal expense, and the expense of preparing exhibits, is a very major item—and one that is unnecessarily high. The CAB could easily remedy this if it wished. CAB practices have made participating in CAB procedures strictly a rich man's luxury.

Dividend to Uncle Sam

WHEN A RUMPUS is raised about air mail payments to the airlines, the taxes paid by the airlines to the Federal Government are usually overlooked.

Take gas taxes as one example. In 1948 the scheduled airlines used something like 322,000,000 gallons of aviation gasoline. On this they paid approximately $4,835,000 in federal taxes. This amounts to about 10% of all of the air mail pay to the airlines.

WAYNE W. PARRISH



THE BEAVER ALL-METAL MONOPLANE

Specially Designed for Small Feeder Lines and Star Air Routes



Fuel tank filler pipes accessible by opening hatch in the side of fuselage immediately aft of pilot's door. Fuel gauges in cockpit visible while filling tanks.



Batteries are easily reached through special hatch in fuselage side. They are mounted in specially-designed tray, which pulls out for servicing.



Rear doors are sufficiently wide to permit loading of 50-gallon drums.

Accommodates 2 to 7 passengers comfortably, or a 1340-lb. freight payload

Powered with an R985 P & W Wasp, Jr. Engine (450 B.H.P.)

The Beaver fuselage has been designed for maximum payload possibilities. It has four doors. Front passenger seat (alongside pilot) is removable, and floor (of a type suitable for carrying cargo) is flush with door bottom. Rear doors also flush with floor and wide enough to roll in 50-gallon drums.

Pilot's seat is permanent, but adjustable. Hammock-type seat for three extends across back of cabin. Two additional passenger chairs easily and quickly installed in center of cabin. Deducting pilot space, total capacity available for freight payload is 134 cu. ft.

A hatch is provided in the rear wall of the cabin to enable long pieces of freight (such as 10 ft. diamond drill rods, etc.) to be loaded and stowed.

Indicating its utility for small-field operation, the Beaver can take off with full gross load, with zero wind, in a distance of 550 feet. With full load, attains height of 650 feet in ¾ mile from start of take-off.

Gross Weight, 4650 lbs.

Maximum speed (5000 ft.), 179 m.p.h. Cruising speed (5000 ft.), 153 m.p.h.

Economical Cruising speed (5000 ft.), 138 m.p.h. (53% power)

Stalling speed (No flaps), 55 m.p.h. Stalling speed (45° flaps), 42 m.p.h.

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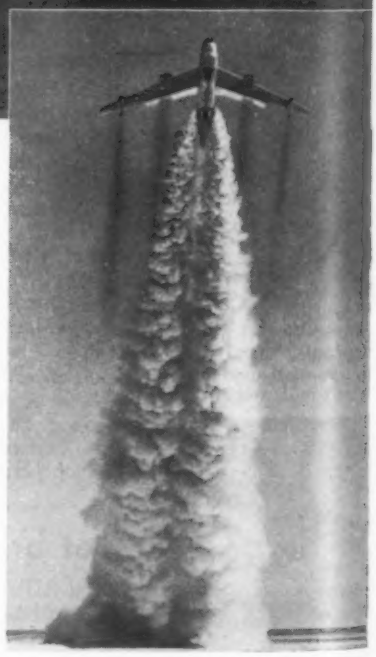
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A Boeing B-47 Stratojet darts into the sky with rocket-assisted take-off.

Peace power gets a boost

If you agree with most of your fellow Americans that a strong U. S. Air Force is a potent factor in maintaining peace, this picture should cheer you.

It is the new Boeing B-47 Stratojet, fastest bomber in this country – probably in the world.

Slim, swept-back wing and tail surfaces and streamlined nacelles, mounted below the thin wings, give the B-47 a radically new look. But far more startling is the performance made possible by these and other features.

With its six powerful jet engines and auxiliary rocket units, the B-47 can take off and climb at almost incredible speed. It can carry 20,000 pounds of bombs. And it flies at better than ten miles a minute. In February it set a transcontinental record of 3 hours, 46 minutes – from Moses Lake, Washington, to Andrews Field, Maryland, at an average speed of 607.8 mph. for the entire non-stop flight!

Boeing leadership in engineering and design gave America the B-17 and the B-29, backbone of our bomber force in World War II. It developed the B-50 Superfortress which holds a similar place in today's long-range bombardment. And in the new B-47 Stratojet, Boeing has produced another great airplane to help preserve world peace.

Built by Boeing for the Air Force are the new B-47 Stratojets, the B-50 Superfortresses, and C-97 Stratofreighters; for the Army, the L-15 Scout liaison planes; and for five major airlines, the twin-deck Boeing Stratocruisers.

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American Aviation

Volume 13 Number 7

Airline Fare Structure Again Heads Toward Confusion

By WILLIAM V. HENZEY

With the announcement that a major transcontinental carrier plans to create a three-level fare structure on Oct. 1, the turbulent airline fare world appears to be headed toward an unequalled peak of confusion within the next six weeks.

Airline and CAB officials envision a muddle of much greater proportions than the 1948 fare mix-up which, it will be recalled, necessitated an unprecedented closed-door session in Washington during August of airline heads and Board members.

The 1949 version not only encompasses a possible general reduction in basic airline fares throughout the country, but involves the continued existence of coach fares, the family plan, and so-called "no meal" fares. It extends also to proposed territorial extension of the family plan and coach fares and to variations of existing promotional schemes, all of which are up for CAB ruling this fall.

Some industry observers feel that the inevitable end is a general fare investigation by the Board, which of course, would maintain the status quo for from three to six months.

Others feel that the time is here to effect fares which will appeal to the masses. They feel that delay or uncertainty will be reflected in revenue losses during the historically-light winter months.

Whatever the opinion, however, it appears certain that the "showdown" period is fast approaching and decisions by the Board and the industry in the next few weeks will have a far-reaching effect on airline revenues for some time.

Three-Fare Level. The three-level fare structure was announced by Northwest Airlines which, on Sept. 1, will place new Boeing Stratocruisers into operation on its Seattle-New York route. Travel on these ships will be at the present level of basic fares, 6.1c per passenger mile, designated as Class I. Class II travel will be on Martin and Douglas aircraft at a new fare level based on approximately 5.1c per mile. This will be about 17% less than the basic fare structure of the entire industry. The third level of fares, or Class III, will be at the 4c coach-fare level.

Tariffs proposing the new fares are scheduled to be filed Sept. 1 to become effective Oct. 1. Northwest said, however, that travel will not be permitted under the revised structure until Oct. 15.

The proposal is not without support in the industry. One major carrier, though publicly-silent up to this point, is known to be giving serious consideration to adopting the plan on its system.

Objections, however, are expected from competing lines whose premium service is provided with aircraft comparable to that for which NWA's Class II fares will be applicable. To these, the Northwest plan is simply a general fare reduction back almost to the early 1947 level. They will argue, in documents slated to be made public shortly, that it will amount to unfair competition and be contrary to the usually-accepted method of charging more for deluxe equipment—not less for standard aircraft.

Chiefly affected will be United Air Lines between Seattle-New York and intermediate points. Already undercut by NWA's $97 coach fare, UAL will find itself charging $26.30 more for regular travel unless it reduces fares generally. Capital Airlines, too, is affected between Minneapolis and New York or Washington. NWA proposes a $50.50 fare between the Twin Cities and New York. Capital's regular fare is $60.60.

The inherent complexities of establishing this plan on a nationwide basis also raises the possibility of a temporary delay in effective dates, assuming no investigation is ordered. It would be necessary for the many lines to establish Class I and Class II "joint" fares, and interline schedules would eventually have to be revised to permit, for example, a Class I passenger from one line to connect with a Class I flight of another.

Snowball Effect. Further, the snowball effect of a reduction by a major line such as Northwest is what makes the situation so complex, for similar reductions by NWA competitors affect carriers which parallel these competitors and the move could well spread throughout the country.

Boiled down it means the industry is faced with adopting a completely-new method of pricing its product, at the expense of a substantial fare-reduction, or becoming involved in what probably would be the most exhaustive fare investigation case in airline history.

Equally as pressing at this time is a CAB-promised decision on further extensions of the family plan and coach fares beyond Sept. 30. Two months ago, exponents of promotional-type fare schemes were prohibited from validating the programs for longer than a three-month period. They were directed to place a Sept. 30 expiration date on all such tariffs with the promise that a CAB study would be completed within that period and a policy statement issued either sanctioning or disapproving longer extensions.

At this time, no such statement has been issued. As a result, the lines have proposed tariff amendments which will force the Board to act. On the coach-fare front, Northwest and Capital have proposed unlimited extensions of their tariffs, while TWA has applied for a



LOW COST OF AIR COACH travel is being promoted by Northwest Airlines with these ads on the sides of new inter-city streetcars in Minneapolis-St. Paul. Air coach is the lowest of a new three-level fare structure proposed by NWA.

Canada's First Jet Transport Begins Flight Tests







THESE THREE PHOTOS of the A. V. Roe's C.102 jet transport afford excellent views of the airplane's physical characteristics. The C.102, Canada's first jet powered aircraft, made its initial flight on August 10. Later, on August 16, the airplane ran into difficulties when the landing gear would not extend. After attempting to lower the gear for two hours, the plane was crash landed. AVRO reported that "the wheels-up landing was so successfully carried out that structural damage to the aircraft was slight. The company expects to continue flight testing shortly."

The 50 passenger, 430 mph C.102 is powered by four Rolls-Royce Derwent gas turbines rated at 3500 lbs. thrust each. The Canadian built aircraft offers sharp contrast to the British de Havilland jet transport which made its first flight on July 27th. The engines are almost entirely external of the wing the fuselage is much closer to the ground, allowing only 6 inches clearance below the wheel well doors. Sweep-back in the main wing is hardly noticeable compared to the 25 degrees of the Comet.

three-month extension until Dec. 31.

Similarly, all participants in the family plan filed a joint request for permission to extend the plan until March 31, 1950. It means that in the absence of CAB's promised policy statement, the Board will be compelled to act individually on these proposals.

NAL & Competitors. Shaping up also are two far-reaching questions involving National Airlines and its competitors. One is the proposed inauguration of the family plan by National to and from the highly-competitive Florida and Gulf Coast market for the first time. Appropriate tariffs, however, now on file to become effective Sept. 5, must withstand protests filed by Eastern, Delta, and Chicago and Southern.

If CAB approves, the plan will automatically become effective over the systems of the three protesting lines who accompanied their complaints with so-called "protective" tariffs. If CAB should disapprove, another full-scale investigation proceeding will be under way.

Important as this may seem, it is completely-overshadowed by NAL's announcement that it will file a 4c coach tariff between New York and Miami via Washington and Jacksonville. It would, if approved, become effective Oct. 1. Initially, NAL officials said, the service would be started with one round-trip daily utilizing 48-passenger DC-4 equipment, with 70-passenger DC-4s to be put into use about Jan. 1, and schedules increased in accordance with demand.

Proposed New York-Miami fare would be $46.80 or 38% below the standard fare of $75.70. Normal rail coach fare between these points is $35.87.

In considering whether or not to approve it, CAB will have to weigh arguments of National that many non-skeds usually switch operations to the lucrative Florida market for the winter-season and thus deprive National of traffic for which it should be permitted to compete. Like NAL's family plan, the coach proposal would have a competitive effect on several scheduled lines.

Then there is another issue which will come to a head prior to Sept. 16 involving a proposal by Continental Air Lines and Monarch Airlines to expand application of the family plan to a seven-day per week basis. Currently, it applies on Mondays, Tuesdays, and Wednesdays, which are considered to be the lightest traffic days of the week.

Good News for Local Operators:

Air Star Routes Approved, G. I. Flight Liberalized

Fixed-base operators and the light-plane industry in general received a double shot in the arm last month when the Post Office Department received authority to open a network of air star routes across the country and regulations which had severely restricted the G.I. flight training program for the past year were relaxed. Both actions open new revenue potentials for local operators.

The long awaited legislation that will give the local operator an opportunity for regular income from scheduled operation was passed by Congress on Aug. 19. This is H. R. 4498, the air star route bill.

What it means is that sometime in the future an undetermined number of local operators will be able to supplement their incomes with post office pay for carrying mail over short routes. While not looking to immediate action on opening any of these routes, the Post Office Department stated that there are a number of areas where present postal service by surface transportation could be expedited by use of light aircraft to move all classes of mail.

Post office officials have asked manufacturers and fixed base operators not to be over-optimistic, since present policy calls for slow action and demonstrated proof of need. Also service must be performed at costs not too far out of line with those of surface transportation, and the proposed route should not conflict with development of a feeder airline or trunk line.

Selection of route operators will be made from among bidders. Type of plane will not be a major consideration, although bid invitations will specify poundages that will affect feasability of types. Subsidies as such will be out. The department says that no bid will be accepted unless the lowest bid from a responsible operator is low enough to make the shift from surface to air transport practical, if surface transport exists between the points in question.

Present Routes. Two air star routes currently in operation give an idea of the possible income. One is that of Air Tours, Inc., from Port Clinton, O., to Kelly's Island in Lake Erie, a distance of 22.8 miles and return, also serving three intermediate island points. The operation is on a six day per week schedule the year around except for a few months during the summer when some of the points are serviced seven days a week. Revenue is 92c per plane mile for a base load of 250 lbs., with an additional 1c per 20 lbs. over the base. Plane used is a Ford tri-motor transport.

The other air star service is during winter only; it supplants a motor boat service that is ice bound for several months of the year. Points served are Pellston, Mich., on the mainland and Beaver Island in Lake Michigan. Distance flown is 35 miles, using a twin-engine Cessna. Last year it was flown by H. H. Bechtold, Jr., a local operator. Revenue for this operation was 40c per plane mile for a 250 lb. base load plus 4c for each 20 lbs. in excess.

New G.I. Business

Tough interpretation by the Veterans Administration of the eligibility requirements for GI flight training courses caused a more than 50% drop in enrollment from July 1, 1948, through June 30, 1949. Hundreds of school operators were forced to the wall and many others seemed unlikely to survive the coming winter slump. Then came good news.

On Aug. 22, Congress finally passed the Independent Offices Appropriation Bill, incorporating an amendment which greatly liberalized the flight training provisions of the Servicemen's Readjustment Act and made it virtually certain that competent flight school operators who could hold on through the winter would have a new lease on life.

Because northern operators have only eight to ten more weeks of good flying weather before winter, the bill passed too late to be of much help to them this year, but they could feel assured of a strong upsurge in enrollments of GI trainees with the coming of spring.

The new provisions of the law let down the bars to enrollment of literally tens of thousands of veterans who either had applied to take flight training and had been rejected by unsympathetic VA officials or had been discouraged from even applying because of the heavy rate of rejections.

Wayne Weishaar, executive secretary of the Aeronautical Training Society, predicted last week that flight school enrollments by early next summer would

How to Get Star Routes

Local operators desiring to bid for air star routes are urged by the Post Office Dept. to take the following steps:

1. Find out if a feeder airline or regular carrier is certificated over the contemplated route.
2. Check with local civic groups and government officials to determine what need exists for an air service.
3. Check with local postal authorities to determine what costs are for surface mail transportation over the proposed route.
4. Submit a plan of operation, with affidavits from the interested local groups and local postmaster, to the Postmaster General in Washington, stating estimated costs, type of plane to be used, and other pertinent data.

Postal authorities will issue an invitation to bid only if they see a need for the route.



Bonanza for Central!—First of eight Beechcraft Bonanzas to be used by Central Airlines on its feederline system in Texas, Oklahoma, and Kansas is accepted by airline officials at the Beech factory in Wichita. Left to right are: Frank E. Hedrick, v.p.-coordinator, Beech Aircraft Corp.; R. E. Harding, Jr., v.p.-operations, Central; Keith Kahle, president, Central; and Lynn D. Richardson, Beech manager of airline sales. Central's Bonanzas are painted red and grey.

NOW...ONLY ON NORTHWEST!

STRATOCRUISERS COAST TO COAST

4 PM — Leave NEW YORK

6:45 PM — MINNEAPOLIS-ST. PAUL

9:35 PM — SPOKANE

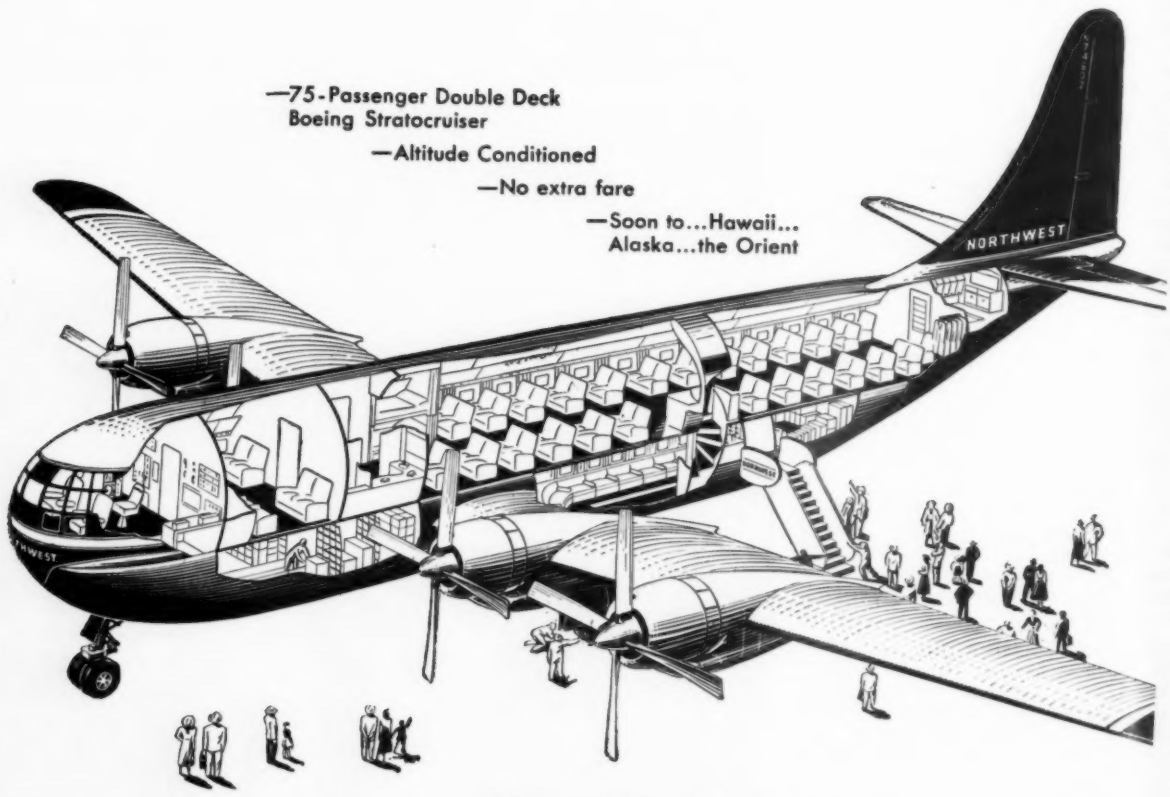
11 PM — Arrive SEATTLE-TACOMA

—75-Passenger Double Deck Boeing Stratocruiser

—Altitude Conditioned

—No extra fare

—Soon to...Hawaii... Alaska...the Orient



See your Travel Agent or

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COAST-TO-COAST...HAWAII...ALASKA...THE ORIENT

rise to within about 70% of the 1947 peak.

For the approximately 3,000 schools approved for GI courses, the manufacturers of the lightplanes used in the training program, the suppliers of the fuel and accessories used, and the thousands of ex-servicemen who sincerely desire to learn to fly as an aid to their livelihood, this was indeed good news.

Eligibility Requirement. Chief liberalization feature of the amended bill is a new eligibility requirement, under which a physically qualified veteran need only to file with VA an affidavit, supported by affidavits from two disinterested citizens, stating that the desired training will be useful to the veteran in connection with earning a livelihood. This was considered much better for the veteran and industry than the complete justification" provision previously written into the law.

The burden of proof is now upon the VA to reject an application, rather than upon the veteran to justify it.

Another improvement in the new legislation is the setting up of an independent Veterans' Tuition Appeals Board to which school operators may appeal from the Veterans Administrator's findings on tuition fees and other charges for GI training. This took away VA's arbitrary fee-setting powers which would have given it "life and death" powers over the flight schools.

Hits New Schools. One new provision of the law which will hit some flight school operators, but not the old established ones, is a ban on VA payments to enrollees in schools established less than one year. However, veterans already enrolled in such schools may complete their courses at VA expense.

The new bill, better than expected by some segments of industry, should mean an almost immediate upswing in enrollments in flight schools in Texas, California, Florida, and other southern states. Operators would do well to comb lists of previously rejected applicants for new business.

CAA Okays Castered DC-3 For 40 mph Cross-Wind

Civil Aeronautics Administration has granted approval of cross-wind components up to 40 mph for DC-3 aircraft equipped with cross wind landing gears. The approval follows extensive testing by CAA along the west coast, and by Goodyear Aircraft Co. in Texas. The CAA DC-3 airplane used in the tests was equipped with the original gear built by Goodyear under CAA contract while the Goodyear ship utilized a production model of the cross-wind gear.

RAL Moves Base to Newark

Robinson Airlines has transferred operations at Greater New York from Teterboro Air Terminal to Newark Airport. The change will effect an estimated monthly cost reduction of approximately $1,000.

Move Would Cost $2,000,000:

TWA May Lose K. C. Base

The U. S. Air Force has notified TWA that it will not renew the lease under which the airline operates its only overhaul base at Fairfax Field, Kansas City, Kan. While TWA has been making every effort to centralize operations in Kansas City, the Air Force has been conducting a survey of locations which would serve as Air Force Reserve Training Centers. Apparently, Fairfax Field proved to be acceptable.

Despite the fact that Air Force officials admit that there are several suitable fields in the area, they notified TWA that the lease would not be renewed. Any move from Fairfax Field would cost TWA at least $2,000,000 according to one spokesman. The K. C. Chamber of Commerce wired objections to the Air Force officials, stating that TWA is the biggest business in Kansas City, employing some 4,300 people and having an annual payroll of over $23,000,000.

As objections to the proposed eviction rose, Air Force officials hastened to explain to Congressional leaders and the public at large that every effort would be made to find a solution whereby TWA can remain at Fairfax Field even though the reserve training activities are centered there. It marked as "premature" any flat statement that TWA's lease would not be renewed.

Reports of the meeting held between the USAF and Board of Public Utilities in K. C. left no question that the AF intended to carry out this order. The matter caused considerable stir in Kansas City until the Washington headquarters of the AF denied that any such plans were final.

In a statement to all employes TWA's vice president of operations, John A. Collings, bluntly stated that *"There was no misunderstanding . . .* Representatives of the Air Force did state that the lease would *not be renewed* and that they would take over the facilities on Oct. 31, 1950." Collings added that "the purpose of this bulletin is to advise all personnel that TWA will do everything in its power to renew the lease for the facilities in question."

Bonanza Purchasing DC-3's For Certificated Service

Bonanza Air Lines, which has been operating for three years as a scheduled intrastate carrier in Nevada, has set November 1 as target date for inauguration of scheduled interstate service under the feederline certificate awarded it by the CAB last June.

Using DC-3 equipment, Bonanza initially plans to fly two round trips daily between Reno, Nev., and Phoenix, Ariz., serving the intermediate points of Carson City-Minden, Hawthorne, Tonopah, Nev., Death Valley, Calif. (on a seasonal basis), Las Vegas and Boulder City, Nev., and Kingman and Prescott, Ariz.

It has hopes later of winning authorization to serve a Phoenix-Nogales route segment from Arizona Airways' certificated but inactive route.

Of the five aircraft to be used, one is a converted C-47, two others are DC-3's purchased direct from Western Air Lines at $27,500 and $40,000, respectively, and the remaining two are former United Air Lines planes being acquired through a broker at about $40,000 each.

Bonanza was hopeful of getting its operating certificate within the next 30 days.



Skytrails— Vapor trails of propellers are seldom seen although in certain weather conditions they are quite common. When American Airlines' Convair Flagship "Rochester" was taking off from Boston recently, Boston Herald photographer Julian Carpenter caught this unusual picture of the propeller's path marked in distinct vapor trails. The separation and shape of the circles in this unretouched photo show the advancing "bite" of the propeller.

Chase Aircraft Makes Strong Bid for AF Cargo Business

By JAMES J. HAGGERTY, JR.

At West Trenton, N. J., employes of Chase Aircraft Co. are putting the finishing touches to a new contender for the Air Force's cargo aircraft business—the Chase XC-123, a huge twin-engine troop-cargo transport which evolved from a glider design.

The XC-123, which his aroused the interest of the Air Force and which seems destined for a production contract, has about the same overall dimensions of the war-time Convair B-24 bomber—span, 110 ft., length, 77 ft. However, it appears much larger, due chiefly to the large cargo hold, which is 36 ft. 8 in. long, 9 ft. 2 in. wide and 8 ft. 2 in. high, and which can accommodate a 155mm howitzer and one truck or any similar combination of combat units.

Power for the XC-123 is supplied by two Pratt and Whitney R-2800 engines. Empty weight is 25,000 pounds, and Michael Stroukoff, president and chief engineer of Chase Aircraft Co., says it will carry a useful load greater than its own weight. Design gross weight for the basic mission of the plane is 54,000 lbs. Top speed at this weight is 232 mph, while normal cruise speed is 185 mph.

The XC-123 is the latest development in a series of Stroukoff airplanes which started during the war when the designer sold the Air Force on the idea of an all wood glider, known as the CG-14. Later, Stroukoff designed a refinement of the CG-14, this time of part wood and part metal, which the Air Force bought and designated the CG-14A. After the war, Stroukoff continued his glider series with the all-metal CG-18, a larger plane capable of carrying 30 combat troops, for which he received an Air Force contract in May, 1947.

Production Order Expected. Recognizing the possibilities of Stroukoff's efficient high aspect ratio wing design, the Air Force decided to go along with the designer on the next step in the process of evolution, which was the addition of engines to the basic CG-18 design. The new powered model was designated the YC-122 and Stroukoff was awarded a limited production order. Only two experimental models have flown thus far, but the Air Force is very much impressed with their performance, and is contemplating a larger production order.

Stroukoff had not given up gliders, however. Following the early flights of the CG-18, he sold the Air Force on the idea of a much larger transport glider, which would be able to carry twice as many troops as his CG-18. The Air Force liked the idea and awarded him an experimental contract for the G-20, which will be the grand-daddy of all gliders.

Chase Aircraft's XC-123 Assault Transport

Wing span	110 ft.
Length	77 ft.
Height	32 ft. 8 in.
Weight empty	25,000 lbs.
Power	...2 Pratt and Whitney R-2800

Basic Mission

Design gross weight	54,000 lbs.
Useful load (inc. 680 gals. fuel)	app. 30,000 lbs.
Range	550 statute miles
Speed (optimum cruise, sea level, 70% power)	183 mph
Speed (max. combat at 16,000 ft.)	266 mph
Service ceiling	23,000 ft.
Take-off over 50 ft. obstacle	1020 ft.
Land over 50 ft. obstacle	1440 ft.

It was evident to both Chase and the Air Force, however, that if you could add engines to the CG-18 and get an efficient assault transport such as the YC-122, the G-20 design offered similar development possibilities. So it was decided to power the G-20—and so much was thought of the potentialities of the project that it was decided to go ahead with the powered model, designated the XC-123, ahead of the G-20. A priority was given the XC-123 and as a result it is now ready for flight testing while the glider is still in an early construction stage.

Novel Safety Devices. Stroukoff is a man with a theory. He believes that if you build an airplane wherein the pilot is safe from minor accidents, you have a better pilot because his mind is at rest, and consequently a better carrier. As a result, all of the Stroukoff planes incorporate a number of novel safety devices.

Chief among these is the "cage." The cage is a steel tube structure which runs from the nose to the bulkhead separating the cockpit from the cargo compartment, encasing the pilots above, below and on the sides. In case of a nose-in crash, the tubing will prevent the pilots from being crushed against the bulkhead.

Another safety factor in the XC-123 is the raised cockpit floor, which is about 30 in. higher than the main floor. Thus, cargo tearing loose from its moorings could not crush the pilots. Other safety items include large, easily accessible emergency exits and jettisonable, self-sealing fuel tanks.

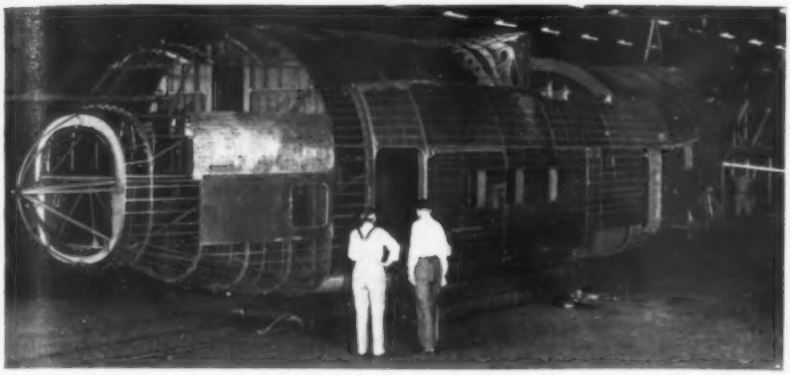
The Chase-designed loading ramp, located at the rear of the under side of the fuselage, in the XC-123 is also unique. It consists of two sections—a rear door which swings upward into the plane, and the forward door which can be swung down to any tail-board level for easy loading or all the way to the ground for loading wheeled cargo. A winch cable can be passed from the load at the rear of the plane through the cargo compartment and out through the nosewheel well for attachment to a power source to pull a heavy object aboard.

The wheels of the plane (two main wheels, one nose wheel) are set very low, giving the XC-123 the appearance of almost resting on the ground. There are two reasons for this—the main gear can retract straight upward into a well in the cargo compartment and the angle of the loading ramp is lessened, permitting easier loading.

Commercial Future. Stroukoff thinks the XC-123 has a future in commercial operations, although he isn't doing any concrete planning in that direction yet.



Chase Transport— Artist's drawing of the Chase XC-123, new Air Force troop and cargo transport. The plane, expected to fly in the latter part of September, was evolved from a glider design.



Pilot Protector—This photo shows clearly the Stroukoff "cage" designed to protect the pilots from nose-in crashes. The steel-tube cage permits the XC-123 to slide along on its nose in case of a landing or take-off accident, eliminating the danger of crushing the pilots against the rear bulkhead. Inspecting the XC-123 in this picture are Michael Stroukoff and William F. Sauers, president and executive engineer, respectively, of Chase Aircraft Co.

"We've got a job to do for the Air Force first," he says. He is enthusiastic about the commercial prospects of the smaller YC-122, in which several airlines have already expressed interest. With firm orders for a production quantity, Stroukoff believes he could sell the YC-122 for $300,000. He has not yet made an estimate of the XC-123 commercial price.

If expected additional orders for the YC-122 and a production contract for the XC-123 materialize, Chase Aircraft will have a space problem on its hands. Even now, with only limited production on the YC-122 in process, Chase is pretty cramped in its West Trenton quarters, where there is available only 110,000 sq. ft. of floor space for production.

The city of Stratford, Conn., has been after Chase to move into the former Chance Vought plant, vacated when Chance Vought moved to Dallas early this year. An alternative would be the acquisition of two Navy hangars in West Trenton, near the present Chase plant.

Stroukoff admits he needs more space but says he has made no decision, rumors to the contrary.

International Title Rights To Aircraft Clarified

Legislation which is expected to facilitate financing of aircraft purchases has been passed by the Senate in the form of the convention on "International Recognition of Rights in Aircraft." The convention, applicable to airframe, engines, propellers, radio apparatus and all other articles intended for use on the aircraft, provides that national laws determine which type claims or liens against an aircraft shall have preference over the title mortgage itself.

In general, this will mean that aircraft used in international operation shall be governed by the laws of the nation under whose flag the aircraft is flown. However, Stuart G. Tipton, general counsel for ATA, has stated that maximum effectiveness of the convention will not be realized in this country until Federal legislation is passed governing uniform title regulations.

The jurisdictional disputes between states having varying title laws confuse the issue when the purchaser and financing agency are located in different states than the one in which the aircraft is purchased.

Although some 50 representatives of the U. S. industry approved the original convention prior to its acceptance, legislation to resolve these jurisdictional problems would require considerable study, according to Tipton. With the U. S. the first country to ratify the convention, the remaining 22 nations have yet to ratify, although Brazil and the Scandinavian countries are expected to act soon.

Alaska Airlines Pays Fines to Avoid Litigation

While not admitting the validity of the government's position in charging it with alleged violations of CAB and CAA regulations, Alaska Airlines has agreed to the entry of two consent orders against it and to the payment of fines totaling $34,000 "in order to avoid extensive and expensive litigation."

A spokesman for the carrier pointed out that practically all of the alleged violations apply against its non-scheduled operations and said these would not be considered violations if the non-scheduled flights were deemed to be private carriage. One fine is for $20,000 in a consent order entered in Washington, and the other is for $14,000 in an order entered in Anchorage.

Suit Filed Against Standard

Suit for $234,500 in damages has been filed against Standard Air Lines in Los Angeles by Mrs. Mildred Harris of North Hollywood and her daughter, Diane, 5, for injuries suffered in the Santa Susana Mountain accident July 12, together with the death of Harley F. Harris, husband and father.



Western Meets Challenge Of California Cut-Rate Lines

By FRED HUNTER

The challenge of the cut-rate air coach carriers, for the first time, is being met on their own terms in California where Western Air Lines DC-4's have begun operating over the intrastate route between Los Angeles and San Francisco-Oakland at $9.95 plus tax.

Technically, it isn't Western Air Lines that has launched this high stakes battle in one of the nation's biggest air markets. Employing the same legal tactics which were used by the non-certificated carriers, the formation of separate California companies, a new company was incorporated under the name of Western Air Lines of California and the terms of the $9.95 plus tax tariff filed with the state public utilities commission under the signature of an agent unidentified with Western.

For purposes of the record, the new wholly California company charters the DC-4 equipment from Western Air Lines at the regular charter rate of $1.25 per mile, as filed by Western with the CAB, and its ticketing arrangement is under contract with Western.

Thus it is that, although the service provided is that of a federal certificated airline under the terms of Western's charter filing, the operation is entirely intrastate and under the jurisdiction of the separate California company.

The fight-fire-with-fire experiment presents several interesting phases, not the least of which is the possible diversion of a large volume of Western's regular-fare Convair traffic to the $9.95 DC-4's between Los Angeles and the San Francisco Bay area. Strangely enough, over the air coach inaugural week-end, the opposite was the case. Western's Convair's at the regular fare of $20 operated with the heaviest loads in weeks.

Not that he appears to be trying to fool anyone on Western's actual part in Western of California, Terrell C. Drinkwater, president of Western, carefully keeps his silence on the subject of the $9.95 air coach operation. "That's another company," is the way Drinkwater replies to interrogation. "My company's only part is to charter equipment."

However, it is no secret that Drinkwater and other executives of Western Air Lines were becoming increasingly concerned over the inroads made into Western's Los Angeles-San Francisco traffic by the low fare intrastate carriers since the first of the year.

Western found itself caught in the middle at precisely the time it established its "no meal" tariffs as a device to enable its Convairs to compete with United Air Lines' DC-6's on the Pacific Coast route. On the same day that the 5% lower "no meal" fares were instituted by Western, California Central Airlines set up in business at $9.95 plus tax between Lockheed Air Terminal and San Francisco.

There's no doubt that California Central's low fare attracted a large number of first riders; generated a large volume of new air traffic. But it also began picking off traffic from Western. Its traffic increased and it added more schedules. Truth of the matter was California Central was doing a pretty good job. Its DC-3's were crowded with 28 seats, but schedule between Los Angeles and San Francisco is only two hours. After gaining a little experience, Cal Central's regularity and on-time performance began to match that of the regular carriers.

On April 1, Robin Airways entered the field, operating DC-4 equipment at $9.95 plus tax between Lockheed Air Terminal and Oakland, setting up at the same time a $1.25 coach service from the Oakland Airport to downtown San Francisco, the same fare as from the San Francisco Airport. Quickly following were California Arrow, operating not only between Los Angeles and Oakland, but to Fresno and Sacramento; Pacific Southwest, operating between San Diego and the San Francisco Bay area with a stop at Burbank, and Channel Airways, operating out of Long Beach.



ADVERTISEMENT which appeared in the Oakland Post-Enquirer Aug. 18 announcing the new coach service.

The spring increases in traffic on all portions of Western's system failed to be reflected on the Los Angeles-San Francisco route. June was a banner month for the airlines. It was for Western. But not between Los Angeles and San Francisco where the traffic curve kept traveling in the wrong direction with load factors staying below 40%.

Immediately that it detected what was happening to it, Western took its problem to the CAB. It also went before the state public utilities commission in California. With no action forthcoming from either source, Western's predicament became acute and it felt impelled to take its own defensive measures to fight its unregulated competitors.

Moreover, Western had six DC-4's which it has replaced with its new Convairs and which it had been trying to sell. Used infrequently, they were being eaten up with depreciation, but the DC-4 market had narrowed greatly and Western was unable to get a satisfactory price for them. Chartering them out for the air coach service offered an opportunity to obtain revenues to compensate for the depreciation charges.

In carrying the battle to the intrastate carriers, Western is placing much faith in a new type of ticketing arrangement consummated with Western Union. The air coach tickets are on sale at all Western Union offices in the Los Angeles and San Francisco-Oakland Bay areas. Western anticipates the convenience of the large number of telegraph offices will give the new service a definite distribution advantage over the other intrastate carriers.

No advance reservations are taken for the $9.95 air coach space. When Western Union—or a travel agent—sells a ticket it is reported and checked off on the flight for which it is sold by number. This eliminates the need of a reservations force.

Although it had not yet obtained the high density seats at the time it started the service on Aug. 19, Western will install 65 seats in the air coach DC-4's. Subsequently, by removing the buffet equipment, it may increase the number of seats to 75, or even to 80 by converting the forward compartment for five more seats.

Indications that the well-established Western Air Lines name may prove to be of great value in attracting passengers were seen in the fact that 750 seats were sold within 48 hours after the first advertisements appeared announcing the service. Before the inaugural flight Friday morning all flights for the week-end were sold out.

Western initiated the service with two round trips daily between the California points. It was planned to increase to four daily round trip schedules Sept. 1.

Aviation Calendar

Sept. 3-5—National Air Races, Cleveland, O.

Sept. 3-5—Early Birds annual convention, Hotel Carter, Cleveland, O.

Sept. 6-8—Annual spark plug and ignition conference sponsored by Champion, Hotel Secor, Toledo, Ohio.

Sept. 9-12—Instrument Society of America maintenance clinic, Statler Hotel, St. Louis.

Sept. 12—1st semi-annual meeting, CAA Airport Advisory Committee, Washington, D. C.

Sept. 12-16—Instrument Society of America convention, St. Louis.

Sept. 18-20—International Northwest Aviation Council annual convention, Spokane, Wash.

Sept. 20-22—Annual inspection, NACA Lewis Flight Propulsion Laboratory, Cleveland, Ohio.

Oct. 3-8—20th Anniversary Convention, The Ninety-Nines, Waldorf-Astoria, N. Y.

Oct. 5-8—SAE 1949 National Aeronautic Meeting and Aircraft Engineering Display, Biltmore Hotel, Los Angeles.

Oct. 12-15—Air Reserve Assn. convention, Long Beach, Calif.

Oct. 13-15—Airport management operations conference sponsored by University of Oklahoma and Southern Flight magazine, Norman, Okla.

Oct. 17-18—New York State Airport Management Conference, Hotel Syracuse, Syracuse.

Oct. 30—Third annual Air Fair, San Francisco Airport. (Junior Chamber of Commerce auspices).

Oct. 30-Nov. 2—NASAO Annual Convention, New Orleans, La.

Nov. 9-10—Aviation Distributors and Manufacturers Ass'n annual meeting, French Lick Springs Hotel, French Lick, Ind.

International

Sept. 1-7—Federation Aeronautique Internationale annual meeting, Wade-Park Manor, Cleveland, O.

Sept. 6—ICAO Council, 8th session, Montreal.

Sept. 7—IATA Legal Committee, The Hague.

Sept. 7-9—Tenth Flying Display and Exhibition, Society of British Aircraft Constructors, Farnborough, England.

Sept. 8—IATA Executive Committee, The Hague.

Sept. 10—IATA OPS European, place undetermined.

Sept. 12-16—IATA fifth annual general meeting, The Hague.

Sept. 17—IATA Executive Committee, The Hague.

September — IATA Warsaw Convention Special Committee, The Hague.

CAB CALENDAR

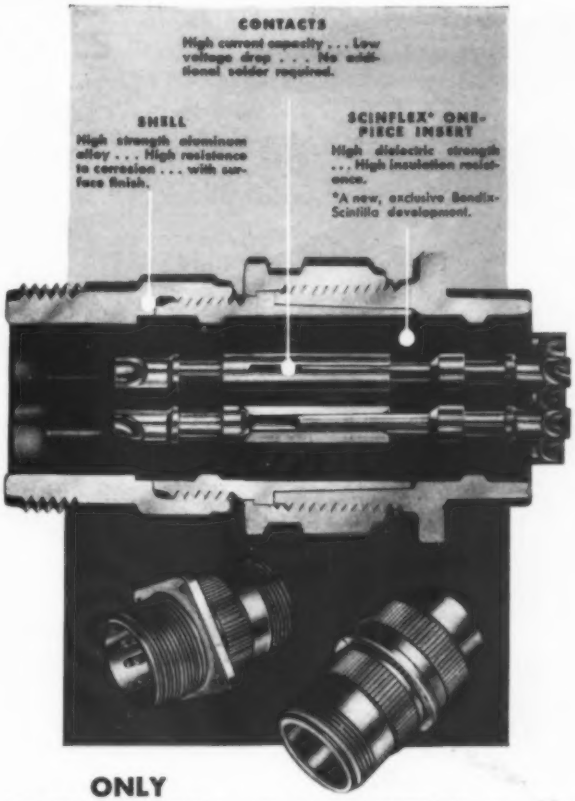
Sept. 7—(Docket 3623) Hearing (resumed) in S. S. W., Inc., Service to Lake Tehoe Case. 10 a. m., e.d.s.t., Room 2015, Temporary Bldg. 5. Examiner Barron Fredricks. Postponed from Sept. 6.

Sept. 12—(Docket 3762) Hearing in CAB investigation of Hawaiian Common Fares. Tentative. Examiner Walter Bryan.

Sept. 12—(Docket 3350) Hearing in IATA Agency Resolutions Case. 10 a. m., e.d.s.t., Conference Room "A," Departmental Auditorium. Examiner Herbert K. Bryan. Postponed from July 18.

Sept. 19—(Docket 3748) Hearing on proposed change of airports by American Airlines at Springfield, Mass. Tentative. Examiner Walter W. Bryan.

Sept. 19—(Docket 2719 et al.) Hearing in Air Freight Tariff Agreement Case. Tentative. Examiner Herbert K. Bryan.



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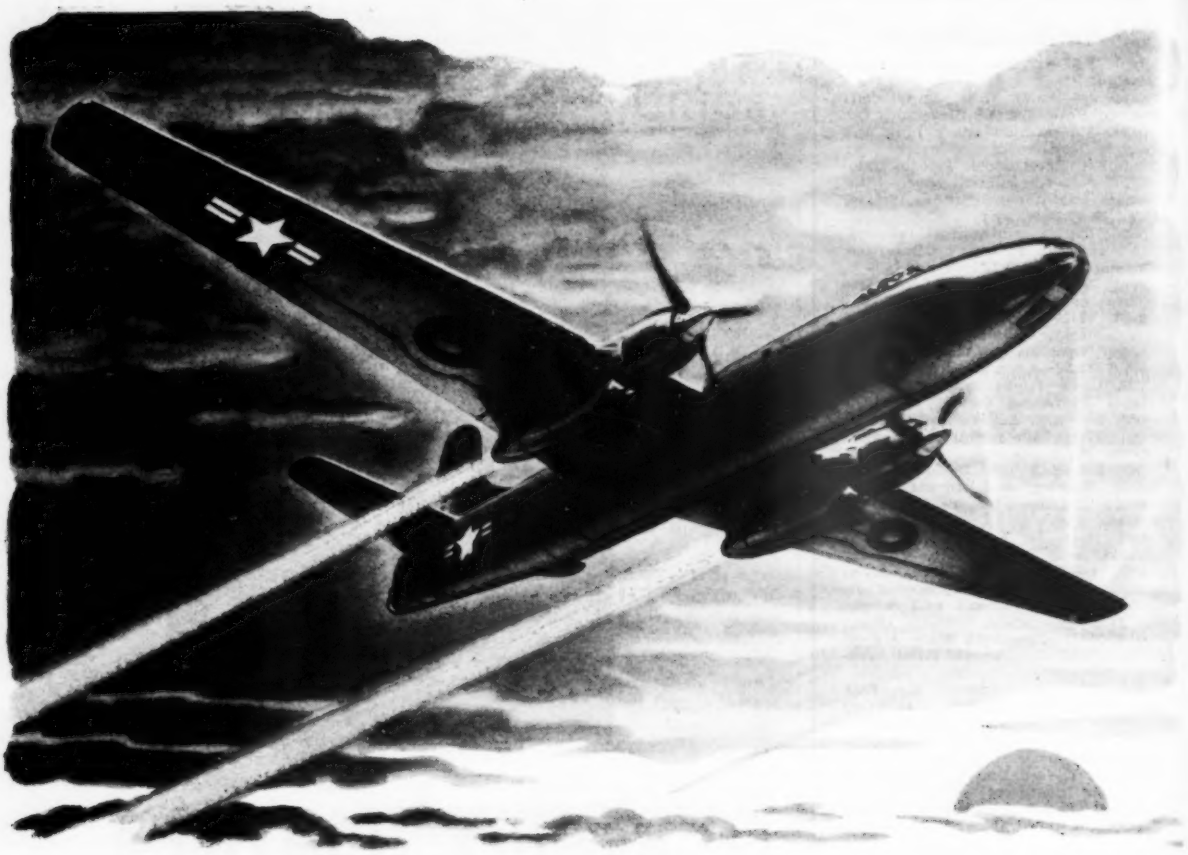
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Its 20 mm. turrets and other armament make it a powerful offensive and defensive weapon. It has the cruising stamina to find its target and return over long distances. Two reciprocating engines for economical long-range power—and two jets for extra bursts of speed—are uniquely teamed in two nacelles. The Martin P4M Mercator is the first jet-powered patrol airplane— another first in a long line of great Martin planes that have strengthened our Navy's air arm! The Glenn L. Martin Company, Baltimore 3, Md.

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Capital Airlines Reports Profits from Coach Service

(Editor's Note: The following article was received as a letter from J. H. Carmichael, president of Capital Airlines, in response to the editorial appearing in AMERICAN AVIATION, *Aug. 15, titled "The Air Coach Dilemma." One question raised by the editorial was whether air coach services by scheduled carriers have paid off or have represented a substantial diversion of passenger revenues from regular-fare operations. The views of Capital Airlines—pioneer and largest scheduled operator of air coach services—as set forth here by Mr. Carmichael are well worth reading).*

Your editorial of Aug. 15, on air coach service, came as a surprise to Capital. Capital inaugurated its air coach service only after it had satisfied itself that such operation would meet the basic principles set forth in your editorial.



Carmichael

It, therefore, isn't the fundamentals of your editorial to which we object but the tenor of the editorial as a whole. Capital would like to think that you, the Civil Aeronautics Board and the industry would give us credit for not starting the air coach service merely because we thought there was magic in the words "air coach."

We have learned by bitter experience that there is no magic in any words or in any acts unless based on realistic thinking and planning. Therefore, Capital, before inaugurating the air coach service, determined to its satisfaction the following:

1. That it would be economically sound, either on an added cost or fully allocated cost basis—and without the aid of mail pay.
2. That it would utilize equipment, facilities and personnel at times of the day when historically we had not been able to use them.
3. That it would develop new air traffic that otherwise would not be developed.
4. That it would not divert from existing services, of either Capital or other airlines, to any harmful extent.
5. That it would reduce Capital's dependence on mail pay.

These conclusions have been borne out by our experience with air coach service. This does not mean that Capital necessarily thinks the air coach service is a sound service for other airlines or for Capital on a system-wide basis. To the contrary, the records of the Civil Aeronautics Board will disclose that Capital has strenuously objected to services proposed by others because they would not prove economically sound or would unduly injure Capital or other airlines.

It is my feeling that Capital has borne the brunt of this editorial attack on the air coach and I feel that what Mid-Continent sees fit to do as far as the continuation of their coach service has nothing to do with whether the service as offered by Capital has or has not been successful.

Mid-Continent's coach fares have been available between Minneapolis-St. Paul, Sioux Falls, Sioux City, Omaha and Kansas City. Certainly there is not available between these cities anything like the volume of rail coach traffic that will be found between any combination of the cities where we are presently offering coach service.

New Traffic. Now may I discuss your editorial in more detail and supply you with facts from Capital's records relative to our air coach service. You say, ". . . the proponents of air coach service were trying to attract an entire new group of travelers who would choose the airplane instead of the automobile, the railroad or the bus." This, *we did.*

The Civil Aeronautics Board's questionnaire showed that in the case of Capital Airlines, 67.8% of all passengers sampled during the two-week period indicated that had not the coach service been available, they would have traveled by other means. You chose to say that 32.2% of Capital's passengers would have traveled on the regular fare airplanes had the coach not been available.

Again, and I quote, "They were going by air anyway so they were smart—they shopped for a bargain." This *has not been true of at least 67.8% of* Capital's air coach passengers. Actually, I was surprised that more people did not make the claim that they would have used regular airline service.

We say *there is* something "magic about air coach" *service.* What we have done "makes sense" because we have kept "costs down" and we have increased revenues by "selling many more units even at a lower unit price."

Your complimentary reference to us is appreciated; however, your statement, "But the results of air coach service on Capital (and the other coach experimenters follow pretty much the same pattern) gives one much food for thought" is unwarranted—certainly Capital Airlines' experience does not follow the same pattern as does Mid-Continent's or Continental's.

Service Expanded. You make a reference to what happened in the first quarter of 1949. I think it is well to comment that prior to the 24th day of March, Capital had only two air coach flights. Our service was expanded on Mar. 24 (the first quarter ended seven days after the inauguration of this additional service) and April 1.

We now have a total of seven air coach flights, five having been added on or after Mar. 24. The quarterly results quoted by you, therefore, cannot be attributed to air coach but reflect the entire system operation. Insofar as its part of the system operation is concerned, the two air coach flights were highly successful, and materially helped to reduce Capital's losses rather than contribute to them.

You raise two highly important points; one of which is "The big question is, of course, has air coach business really paid off, or has it represented a diversion not only of an individual airline's business but of the business of other carriers?"; the other, "The true test is what can be done without mail pay . . . "

These are answered, insofar as Capital is concerned, by the following facts. The results evidenced by these facts are *exclusive of any compensation for mail pay whatsoever*

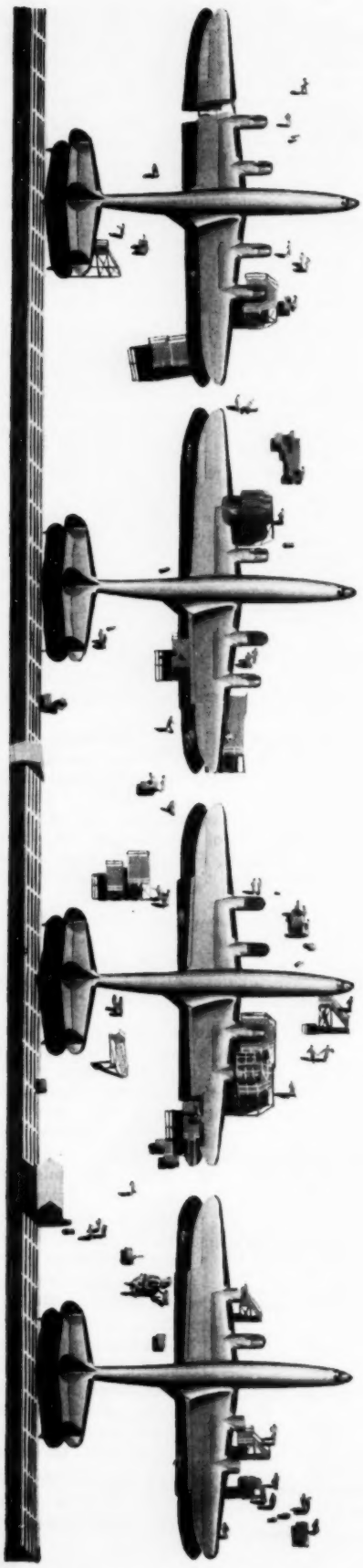
Capital's Results. During the nine month period beginning Nov. 4 and ending July 31, Capital Airlines transported 83,323 coach passengers, 44,235,000 revenue passenger miles, with an average load factor of 76%. During this nine month period, from the sale of coach passenger service, we grossed $1,752,408. Coach cargo revenue (express and freight) amounted to $87,277, for a total non-mail revenue of $1,839,685.

The coach operation expense, on a *fully allocated cost basis,* was $1,564,315. It is well to point out that included in this expense item is approximately

Results of Capital Airlines Air Coach Service

	No. Psgrs.	Gross Non-mail Revenue	Total Expense	Profit on Allocated Expense Basis	Profit on Added Cost Basis
1948					
November ...	2,655	$72,825	$75,261	$—2,436	$2,511
December ...	4,949	135,438	108,376	27,062	82,822
1949					
January	3,450	92,824	77,227	15,597	46,433
February ...	2,612	69,179	56,165	13,014	42,843
March	4,060	103,864	100,792	3,072	28,646
April	17,411	328,741	300,115	28,626	171,021
May	15,464	314,468	292,557	21,911	190,353
June	16,040	353,903	258,188	95,715	236,221
July	16,682	368,443	295,636	72,809	241,811
Total	**83,323**	**$1,839,685**	**$1,564,315**	**$275,370**	**$1,042,661**

NOTE: All figures above without mail pay.



World's most reordered four-engined transport

The internationally-famous Lockheed Constellation is the world's most reordered four-engined transport. In the past year alone, 44 of these luxury airliners were purchased by seven major world airlines.

Trans World Airline bought an additional 20, boosting its fleet of Constellations to 55, the largest standardized four-engined fleet in the world. It was TWA's sixth order for Constellations. Eastern Air Lines bought seven more—its third purchase. Air France ordered an additional six—its fifth order. KLM Royal Dutch Airlines bought four new Constellations, the fifth time it has purchased this 320-mile-an-hour transport. The Union of South Africa bought a fleet of four for the South African Airways, newest member of the Constellation family. Air India International bought two, and Qantas Empire Airways, which flies the long Sydney, Australia, to London run, ordered one more.

It is this constant world-wide demand for the Constellation that has kept Lockheed's Constellation production line in continuous operation. This production line has never been shut down.

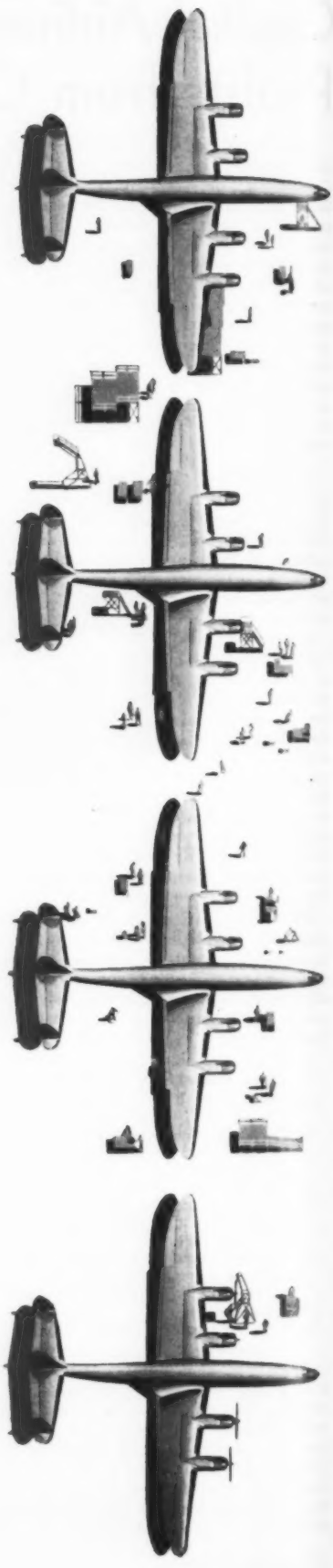
This *tried and proven* luxury transport has now flown 5,000 million passenger miles, including more than 15,000 Atlantic crossings. It is flown by 12 major world airlines.

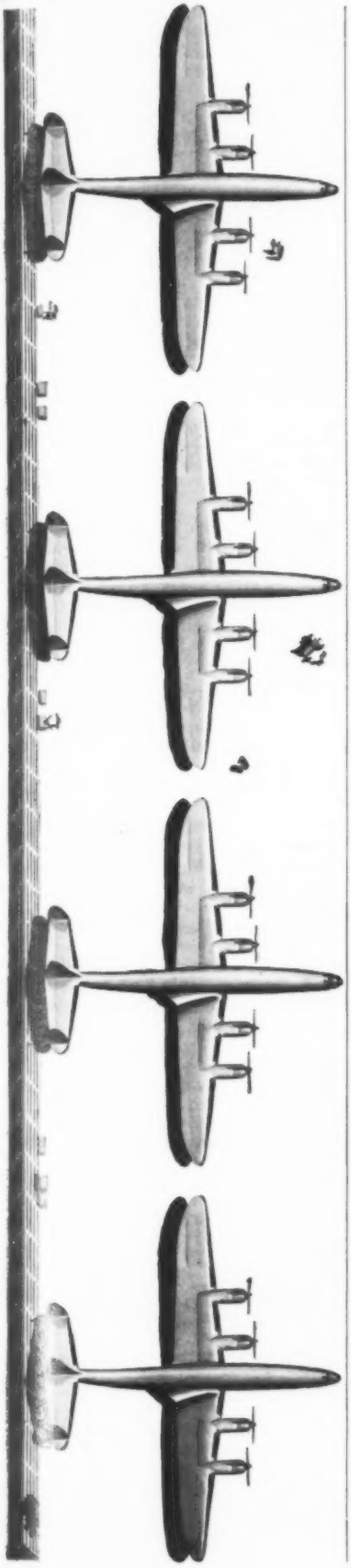
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$200,000 of advertising from which the company derived a benefit far beyond its application to strictly air coach service. The net operating profit from Capital's coach operation for a nine month period without any assistance from mail pay was $275,370.

In considering what the air coach has done for Capital Airlines, I think it is well to look at the profit that has accrued on an added cost basis. Had not Capital ever operated any coach services, it would have still had the recurring expense of ticket offices, the salary of its officers, the salaries of its employes, items of depreciation and utilities, and many other expenses.

Admittedly, we have had additional expense items such as crews, gasoline, the advertising previously referred to, a *few* personnel additions; however, when you consider the record in the light of the added expenses, we have made a profit of $1,042,661 on the air coach operation.

On a *fully allocated cost basis*, Capital's coach service has shown a net profit in every single month except November, 1948. This was the first month of coach operation and we lost $2,436.

The maximum profit in any single month was obtained in June and amounted to $95,715.

The minimum profit in a single month was March and amounted to $3,072.

During the greater part of March, our original two coach flights were forced to absorb all the additional advertising which we were running, announcing the expansion of our coach service which took place on Mar. 24 and April 1.

Advertising was run in an additional nine cities: Washington, Cleveland, Detroit, Milwaukee, Minneapolis-St. Paul, Richmond, Norfolk and Baltimore. Advertising was continued in New York, Pittsburgh and Chicago. As you well know, every one of these cities represents cities having the highest advertising rates in the country.

The average net profit from coach service, with the air coach absorbing its full share of all *allocated costs*, has been over $30,000 a month since its inauguration. On an *added cost basis*, the average profit has been over $115,000 a month.

High Loads. The high load factors on the air coach in recent months has had the effect of raising Capital's overall load factor, which has meant less mail pay. Had Capital not operated its coach flights, its mail payments would have been substantially higher.

I am sorry that you did not see fit to comment on the high percentage of first riders who are patronizing Capital's coach service, although Eric Bramley did so in his article on Page 55. The 20.9% on all coach flights (18.5% on Capital) is certainly a figure to be proud of when you consider the percentage of first riders is approximately double that which you find in regular passenger flights. Interesting also is the fact that 65.9% of Capital's coach passengers were traveling for personal reasons, as compared to the 39.6% traveling for this reason on our regular service.

It is well known how tremendously Capital has been able to increase its aircraft utilization as a result of the amount of flying done on coach trips. Previously, we did little, if any, flying between midnight and 6:00 a.m.

Untapped Market. In 1948 there were approximately 14,000,000 tickets sold by the domestic airlines. It has been variously estimated that between three and five million people bought these 14,000,000 tickets. When you stop to consider that out of a country of almost 150,000,000 people, there are only, let's say, five million people who will patronize us, it seems a pitifully small segment of the American public.

This, in my opinion, is the basic ill—what actually is wrong with the airlines. There are too few people willing to buy our service. Because of a set of circumstances peculiar to Capital, we have, through our air coach service, found a way to offer a seat mile at 4c and make a profit on it!

This not only benefits the traveling public and Capital Airlines but basically meets every important test posed in your editorial.

RFC Loan for Southern

Southern Airways, which recently began operations over certificated feeder routes in five southern states, has been granted a loan of $120,000 by the Reconstruction Finance Corporation for working capital and equipment purchases. Interest will be at the rate of 4% per annum, payable monthly beginning one month after the date of the note, with principal payments of $5,000 monthly beginning March 1, 1950. Final maturity date is February 1, 1952.

Air Race Notes

The annual Bendix Race to Cleveland, Sept. 3, will get off from a "race horse" start for the first time, according to Larry Therkelsen, National Aeronautic Association representative in Los Angeles. Heretofore the planes have started individually in a race against time. This year's start from Rosamond Dry Lake will be from a single line, each plane straddling a take-off line running 2,000 feet at 90 degrees to the base line, with 400-foot separation between the planes. Starting may be by radio transmission.

Four Air Force **North American F-86 Sabres** will compete in the jet division of the Thompson Exhibition Race at Cleveland. The Sabres will race over a seven-pylon course. In addition, **five Lockheed F-80C's** have been entered in the Allison Trophy Race by the Air National Guard.

The Goodyear Trophy Race has 38 potential entries, largest number in its history. Qualifying trials will limit the field to 32. Prize money totals $25,000.

J. Earl Steinhauer, plant operations manager of Fairchild Aircraft Division, will serve as official starter for the races —the seventh time in that capacity.

Between U. S. & France:

The British Aviation Paradox

(This article follows a description of the French aircraft industry, published on July 1, and is a prelude and background to the forthcoming Farnborough show—the most important annual aviation event in Europe—The Editors.)

Historians and economists, looking back upon these post-war years, may come to the conclusion that in theory the British system of aircraft procurement—which falls between capitalistic American principles and complete nationalization in France—is a most flexible arrangement, where research and development appropriations are limited. It is not the formula which is at fault, but the way it is used by the British.

Any system which aims at compromising the advantages of two others, runs the risk of getting some of the worst elements mixed with the best of both. The British wanted to combine free enterprise in construction, if not design, with a greater degree of overall state control, and thus avoid unnecessary duplication.

By European standards, the British aviation effort dwarfs that of the other Western Union countries, yet close examination shows it possesses neither the virility of competition, nor the discipline of state control.

French Lack Cohesion. The main trouble with the French Union Syndicale des Industries Aéronautiques is its failure to provide the industry with cohesion. The Society of British Aircraft Constructors goes to the other extreme and welds its members into a solid bloc, and they all hang together so much that the result is a sort of monopoly, which has proved strong enough to challenge the civil and military operators. Mr. G. S. Lindgren, Parliamentary Secretary to the Ministry of Civil Aviation, said recently that, with the one exception of de Havilland, the British industry takes no notice of what the customer wants. He rightly quoted as a typical example, the way Sir F. Handley Page promised B.O.A.C.'s entire Hermes fleet by midsummer, but when the time came failed to deliver a single one.

Government Preoccupied. Even the Labor Government, it seems, is too preoccupied to intervene in what seems to the Socialists the production of desperately complicated equipment, and contents itself with uttering a series of *non sequiteurs* at not too frequent intervals. The country will not allow any of the big constructors to go out of business, and every one is kept busy—even if it means giving them sterile and useless work to do.

When the output and efforts of a private organization are completely underwritten by the taxpayer and the company is permitted to lead a life wholly sheltered from the knockabout commercial ups and downs, one of two things can happen—(a) the designers will feel free to embark upon some daring innovation which would not have been otherwise contemplated, or (b) they will sit back, earn their daily bread, do the minimum and make no effort to think out the types of aircraft likely to win a world sale and help the country to earn foreign currency.

Some British makers, like de Havilland, Rolls-Royce, English Electric, Gloster and Vickers have fortunately turned out among their range of products, some which fall into the first category, but a large part of the industry is sunk in lethargy.

The basic trouble with febrile elements of the industry is an inability to put forward in a convincing way, constructive proposals for types of civil aircraft with a world market potential. The Government departments, the operators and the S.B.A.C., must share some of the blame by failing to prod the manufacturers into building the right types.

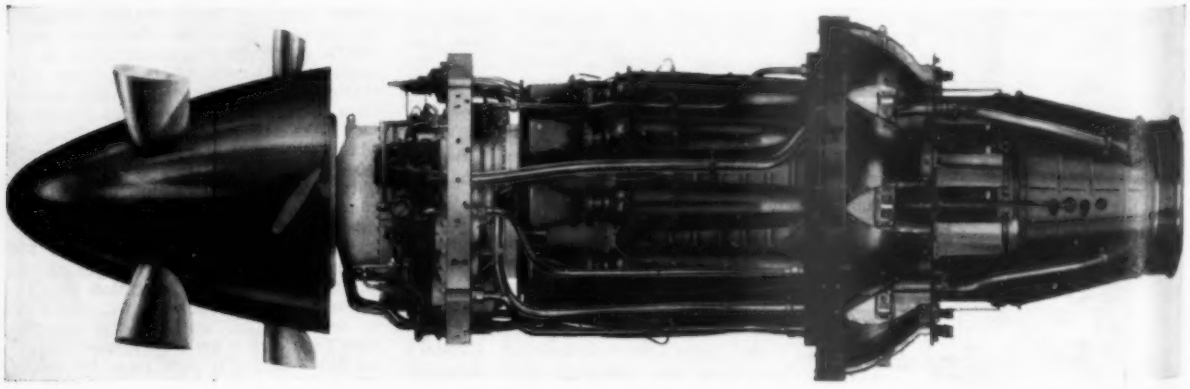
Thus, instead of building a 150,000 lb. transport with six Centaurus or four Pythons and a 9,000 lb. transport with four Gipsy Majors, they have duplicated the Viscount and Apollo transports and the Athena and Balliol trainers, and been involved in the great Tudor disaster.

Britain has taken a world lead in certain fields, such as turbo-jet and turbo-prop transports, prop-jet naval fighters, flight refueling, and very high altitude jet research. But, five years after the war, they have failed to get into service the two key four-motor projects, which talk commercial sense in any language—first a 110,000 lb. transport for transcontinental hauls, and second a 55,000 lb. transport for shorter range work.

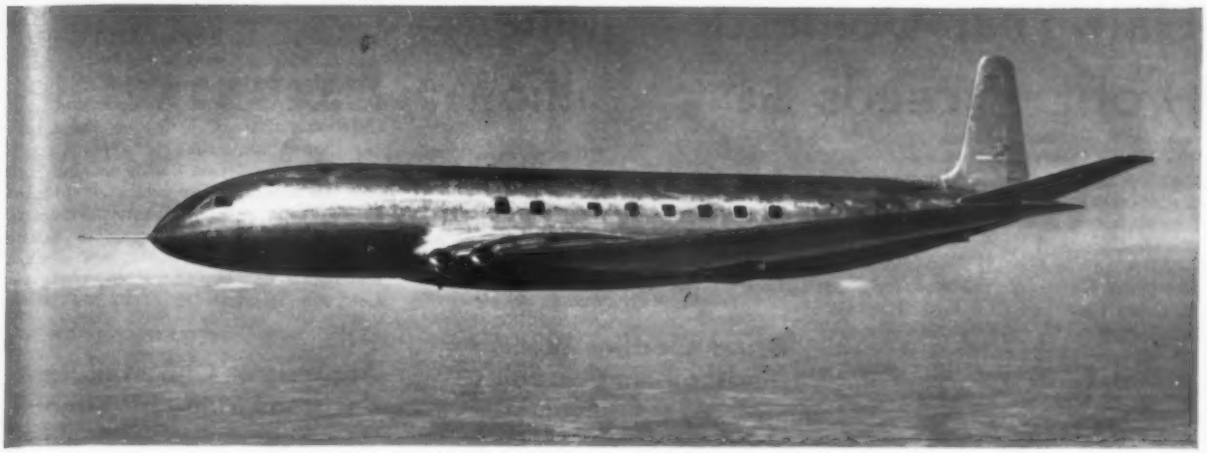
British Slow. In plain words, the industry in Britain is slow and old fashioned; only now are their aircraft being fitted with tricycle undercarriages, but even in 1949 the latest civil and military aircraft, like the Comet and Canberra, have unduplicated mainwheels. The British are, only now, getting around to the use of lift flaps, although they pioneered this equipment.

The French aircraft industry committed hara-kiri before the war by adopting the 40-hour week and dissipating their energies into myriads of prototypes. Britain has always appreciated the need to *produce* aircraft (even if they are obsolescent), but with their 5-day week they have never been nearer to a similar disaster than at present. Of post-war vintage, only the Dove, Aerovan, Viking, Wayfarer and, vaguely, the Tudor IV have gone into regular civil service.

Among the prototypes which have been, or are being, developed are the Sealand, Concordia, Merchantman, Prince, Boxcar, Marathon, Pioneer,



Competitor for R-4360—In Britain the feeling is that the type testing of the Armstrong Siddeley Python propeller gas turbine will insure a commercial British engine with rated power equivalent or better than the Pratt and Whitney R-4360 engine. In this latest attempt to gain type approval for the Python, tests are being conducted at 3500 hp but the nominal rating of the engine is 3670 hp and this will probably be increased to over 4,000 in the future. The Python, which has been under military security restrictions for some time, has totalled nearly 6,000 hours of bench testing, been flown over 150 hours fitted in a Lancaster test bed and had limited use as a single power unit for the Navy's Wesland Wyvern W.35.



Clean Form—This in-flight photo of the de Havilland Comet gives the airplane a much cleaner look than most of the photographs that have been previously released. The Comet has made over 14 flights since its maiden flight on July 27th. It has flown at speeds up to 430 mph and at altitudes as high as 38,000 feet.

Apollo, Viscount, Merganser, Shetland, Aerocar, Ambassador, Hermes, Comet, Brabazon and nearly a dozen different Tudor variations.

Civil Aircraft Effort. Bearing in mind that in nearly all cases, several prototypes of each design were built, Britain has spent at least $200 million, excluding the Brabazon, SR-45 and Tudor expenses, which alone may run to an additional $100 million. This shows the magnitude of the British effort to produce civil aircraft.

Nobody can say the Britons are not trying to build civil aircraft in every class from 10,000 lb. to 300,000 lb., but few of these new types promise to be exportable. The Dove may continue to sell; a few Ambassadors might be sold; the Comet and Viscount will be used if civil turbines prove practical; the Marathon and Prince also could sell in small numbers.

Nearly all the British troubles in the evolution of civil transports spring from an inability (1) to anticipate useful designs, (2) to adopt modern ideas and (3) to build light but efficient structures. Their stressing requirements are, in many cases, unnecessarily stiff, and this handicaps the manufacturer from the start. Above all they lack civil powerplants.

British civil aircraft, on the whole, put up a better showing than those of any other European country. The U.K. effort would, however, be improved out of all recognition if they use their good system of procurement to concentrate their efforts onto designs with a world sale and which fulfill one role well.

The Military Picture. Criticisms of British civil aircraft procurement are often countered by the fact that military aircraft are obtained in the same way with much greater success. The comparative efficiency of military aircraft is, however, due to other factors. The British find military development is easy because they have a number of good military power units.

With the possible exception of the Bristol Hercules, there is not a single first class big commercial engine in Britain, but there are any number of good military engines. The 36-liter Sabre delivers over 3,000 hp, and the 27-liter Merlin gives over 2,000 hp. Jet engines are controversial in civil transports but are completely accepted in military aviation.

There is another factor which contributes to the military successes—namely, that during the war the British built fighters which were unrivaled in the European theater, and the present breed of jets is, essentially, an adaptation of those designs. They started off post war on the right leg and the specialized nature of the work has tended to increase their technical and industrial lead in Europe.

Not only have the Vampire and Meteor sold all over the world, but the Hawker Sea Fury, Avro Lincoln bomber and Fairey Firefly navy strike aircraft have also done well. In addition the British are still doing a brisk export business in war-surplus Spitfires, Mosquitos, Beaufighters, Tempests and Halifax bombers.

Develop Basic Designs. In no other field have the British put into practice the principle that development of a good basic article is better than research. The Vampire and Meteor are basically old designs but by modifying them, they seem to be ageless. This was the secret of the Spitfire and the Hurricane. (As an instance of an aviation pedigree, the Spitfire design moved imperceptibly into the Spiteful—this formed the basis of the "jet Spiteful," later called the Attacker with the same wings, undercarriage and other details. The Attacker has led to the 510—a swept wing version of the "jet Spiteful.")

New types of Vampire with thin wings, more fuel, more power, higher Mach number and, it is said, two seats (presumably for night fighting) will keep this aircraft in the forefront. The Meteor, now with two Avon jet engines, reaches its compressibility limit on the climb. This airframe has, however, reached the end of its basic development in the Mk. 4, although refinements (like increased fuel capacity) are continuing.

The next aircraft phase includes swept wing twin jets, and several of the well-known builders are busy with delta-wing fighters which combine a low wing loading with supersonic potentialities.

Future fighters can be as slim as the F.80 but two Sapphire or two Avon jets totalling, say, 18,000 lb. static thrust would give a level speed of about M. 1.7. These things are not pipe dreams, but are obvious realities and show the possibilities which are open to any country producing very advanced jet engines.

100 Ton Jet Bombers. On the question of offensive aircraft, four jet engines of 15,000 lb. static thrust each will make possible bombers up to 200,000 lb. with a maximum level speed of M. 0.92, and unconventional platforms are likely to be necessary to delay the onset of local drag at transonic speeds.

On the Naval side, undercarriageless aircraft for interception are still a matter of some controversy, but the land based interceptor fighter need sacrifice not more than 2% level speed performance when "navalized." The Westland W.35 with a 4,000 hp Python prop-jet is a new naval aircraft with a future.

Enough has been said perhaps to show that the secrecy surrounding British military developments hides the nucleus of real military air strength and is not a cloak for inefficiency.

Adding up the whole British effort, it should be remembered that aviation development in Europe, with its parlous financial condition, essentially follows trends laid down during the war. Five post-war peaceful years seem long enough to forget the war, but the war still exerts the strongest influence on current products. That explains at once the paradox of the continuing contrast in effectiveness between British civil and military products.

Half-Year Domestic Airline Profit Exceeds $6.3 Million

A second quarter that was one of the most profitable in airline history enabled the 16 domestic trunklines to end the first six months of 1949 more than $20,000,000 better off financially than they had been at the end of the same period last year.

Where they had taken an aggregate net loss of $14,178,604 through June 30 last year, they could boast of a solid profit of $6,351,768 for the same six months of 1949.

The second-quarter profit of more than $13,000,000, with all 16 carriers in the black, had wiped out the first-quarter deficit of $6,968,778 and left ten of the 16 carriers with net profits ranging from Braniff's $19,907 to American's $3,332,181. It was the first time in quite a while that anyone had topped Eastern in earnings, but Eastern's half-year net of $2,582,864 was still a tidy sum.

Domestic Financial Results

1st Six Months—1949

(000 omitted)

Carrier	Total Operating Revenues	Total Operating Expenses	Net Profit or Loss After Taxes
American	$ 47,662	$ 43,659	$3,332
Braniff	6,916	6,927	19
Capital	12,562	12,217	832
C & S	4,159	3,800	202
Colonial	2,039	1,980	38
Continental	2,514	2,725	—143
Delta	8,119	7,609	312
Eastern	37,502	32,733	2,582
Inland	1,232	1,054	110
MCA	3,639	3,395	148
National	7,921	7,054	865
Northeast	2,544	2,648	—119
Northwest	11,886	12,129	—334
TWA	30,611	30,954	—901
United	40,530	40,513	—523
Western	4,050	4,038	—70
Totals	**$223,893**	**$213,433**	**$6,351**
Total—Jan.-June '48	**185,162**	**195,746**	**—14,178**

And whereas six of the 16 had registered losses of over a million dollars each in the first half of 1948, not a single loss figure exceeded six digits this year.

Soaring passenger and freight revenues and increased mail pay resulted in a 20% increase in total operating revenues for the first six months of 1949 as compared to the same period last year—$223,893,439 as against $185,162,789. At the same time, operating expenses rose from $195,746,039 to $213,433,274—an increase of only 9%.

Contributing to the record revenues for the six-month period were: no fatalities on the certificated airlines in the six months, improved on-time performance and reliability, and increasing public acceptance of air travel as a result of family-fare plans, air coach services and fast, comfortable postwar equipment.

There was every indication that another sizeable profit was coming up on third quarter operations.

Board Clarifies Feeder Development Cost Policy

Last month the Civil Aeronautics Board moved to prevent the government from being saddled with an "unreasonable burden" of mail pay when extension and development costs of a feeder-line have to be amortized over a short period of operations because inauguration of service is delayed well into the period of temporary certification.

The Board said it proposed to follow a policy of amortizing allowable extension and development costs over a period of two and one-half years, with a minimum period of two years allowed in the case of feeders whose certificates run for three years from the date of certificate award without a six-month period of grace for the commencement of operations.

When a non-operating feeder is reluctant to incur the expenses of inaugurating service without assurance of an extension of the life of its temporary certificate, it may file an application for such extension before starting service and the Board will endeavor to grant priority treatment to such applications, the policy statement said.

Improved Service Seen In CAL's Merged Route

Improved service, greater elasticity of operations and direct economies are some of the benefits Continental Air Lines expects will result from the CAB approval last month of the consolidation of its Routes 29, 43 and 60 into a single Route 29, with mandatory stops at route junction points generally eliminated.

A Denver-Wichita nonstop and a one-stop service between Denver and Tulsa are among the improved services made possible. Denver-Tulsa nonstops were ruled out, however, on the ground that the loss in revenues resulting from omission of Hutchinson and Wichita would more than counterbalance the cost savings realized and would furthermore have a diversionary effect upon Braniff Airways' Denver-Tulsa traffic.

Conditions attached to approval of the route consolidation were: (1) that either Wichita or Hutchinson be served on all flights serving both Denver and Tulsa; (2) that service at Hobbs, N. M., may be omitted by Continental on all flights other than those between Midland-Odessa and Lubbock, Tex., where the omission would place CAL in direct competition with Pioneer Air Lines; (3) that at least one stop be made at a point other than Oklahoma City on all flights between El Paso on the one hand and Oklahoma City or Tulsa on the other; (4) that Albuquerque or a point south thereof be served on flights serving both San Antonio and Denver; and (5) that at least one additional intermediate be served on CAL flights between Albuquerque and Kansas City, via Pueblo, and flights between the same points, via Colorado Springs.

Analysis of CAB Mail Rate Decisions Made by Kimball

A summary and analysis of all recent opinions of the Civil Aeronautics Board, setting or proposing permanent mail rates for domestic trunklines and feeders, has been completed by Frederic P. Kimball, air transport economist, formerly with Charles A. Rheinstrom, Inc., and American Airlines.

Opinions covering 15 airlines are surveyed: Braniff, Capital, Chicago and Southern, Continental, Delta, Empire, Florida, Inland, Mid-Continent, Monarch, Northeast, Pioneer, Southwest, West Coast, and Western.

The report is arranged by subject matter, rather than by carrier, to permit direct carrier-by-carrier comparisons. Included are sections on schedule and equipment allowances, non-mail revenues, disallowances in principal cost categories, allowable investments, and the determination of mail rates. While no attempt was made to evaluate CAB's judgment in the opinions covered, the author does point out some examples of what he considers to be omissions or inconsistencies.

The 258-page mimeographed report, legal size, single-spaced, is available from the author at Tarrytown, N. Y., at $175.00.

MILESTONE

25 Years for CMA

Compania Mexican de Aviacion, Pan American Airways affiliate, on Aug. 24 marked the 25th anniversary of its first flight over the 93-mile route between Tampico and Tuxpan. Then it owned one open cockpit plane; today it has a fleet of 15 DC-3A's and five DC-4's, has a route system of 5,137 miles and flies 21,040 miles daily over routes linking Mexico City with 22 important cities in the Republic and with Los Angeles and Havana. CMA was purchased by Pan American in 1929.

George L. Rihl is president of the line and Elton Ross Silliman is managing director.

100% Schedule Completion: Continental Air Lines completed all scheduled flights and maintained an operating efficiency record of 100% of scheduled miles flown during July for a new company record. More than 500,000 plane-miles were flown during the month.

Between the Lines

By James J. Haggerty, Jr.



Still No Strategic Plan

As we go to press, the House Armed Service Committee's investigation of B-36 procurement and strategy is closing out its third week and there is every indication that the remaining days of the investigation will produce some lively testimony, for the author of the famous "anonymous document" which started the investigation has just been unveiled, and he in turn implicated airplane manufacturer Glenn L. Martin as a contributor to the document.

The author of the document turned out to be, of all things, a Navy official, one Cedric Worth, a civilian special assistant to Undersecretary Dan Kimball.

This came as a complete surprise to Washington observers who had been led to believe that the military services were completely unified and that none would stoop to belittling his brother service. The document, as you probably know, contains a series of allegations to the effect that the Air Force's decision to revive the B-36 procurement program after it had lain dormant for several years had been brought about through political influence; specifically, that Convair board chairman Floyd Odlum, through contributions to the Democratic campaign fund, allegedly as high as $6,500,000, had been able to pressure the Air Force into the purchases; that Defense Secretary Louis Johnson, a Convair director until he became defense boss this year, had applied similar pressure; and that W. Stuart Symington, Secretary of the Air Force, had also joined the conspiracy. Symington's alleged reward was to be the top slot in a huge aircraft combine which Odlum was going to promote by a series of mergers.

The rumors had been pretty well exploded before Worth's admission that he was the compiler of them.

The Other Half. It should be remembered, however, that investigating the charges of dishonesty in the B-36 program is only half of the investigation as originally proposed. The other half was to be a look into the strategic employment of the B-36 as a weapon and to question whether the theory (and that's all it is so far) of intercontinental bombing is practical and whether we are not unbalancing the defense establishment in favor of an unproved theory. The committee appears reluctant to tackle this half of the investigation and there seems to be a possibility that it might be glossed over lightly. There are good reasons for such reluctance. First, the committee, for the most part, does not have the technical background to properly assay the information on this subject which would be presented them, and such testimony would probably do nothing more than publicize a series of conflicting views. Secondly, it places Congress in the position of making decisions which should rightfully fall to the Joint Chiefs of Staff.

But there is still considerable difference of opinion on the subject within the National Military Establishment and someone ought to take a good long look at the defense picture. The Navy's opinions on intercontinental bombing are well known. Gen. Omar N. Bradley, newly-appointed chairman of the Joint Chiefs, admitted during the investigation that he questioned the efficiency of intercontinental bombing, although he admitted that we would probably have to resort to it in a war.

There is, as a matter of fact, considerable difference of opinion within the Air Force itself. For instance, during the testimony Gen. George C. Kenney, who was commander of the Strategic Air Command (which operates the B-36's) not very long ago, tossed the Air Force's claims of near-invulnerability at high altitude for the B-36 out the window, and admitted with refreshing frankness that he thought fighters *could* shoot down B-36's. He would not use the B-36 as a day bomber for this reason, Kenney said. He expressed great confidence in the plane as a night bomber, pointing out that radar-equipped interceptors for night work are far behind bombers in development and that B-36's could probably get into a target without ever being detected until the bombs dropped—*at night.*

This sounded quite plausible. But then Lt. Gen. Curtis E. LeMay, who once sent B-29's over Japan without guns, came along and kicked Kenney's testimony out. He would not use B-36's as night bombers, LeMay said. They would be daylight bombers and fly missions similar to those flown in World War II.

Symington and Vandenberg Disagree. And then Symington and his Chief of Staff, Gen. Hoyt S. Vandenberg, disagreed on another question of tactics. Symington testified that the B-36 had been bought because it was the only bomber that did not require overseas bases. But then Vandenberg, under questioning by Rep. James E. Van Zandt (R., Pa.), admitted that he considered overseas bases pretty important in B-36 operations. Van Zandt asked if Vandenberg thought the B-36 could fly a 10,000-mile mission under combat conditions. Vandenberg replied, cautiously, "Under certain conditions, yes." Then he asked why Van Zandt insisted on the 10,000-mile figure. The Congressman was caught off first base



Northrop Raider— First flight photo of the Air Force's latest assault transport, the Northrop C-125 Raider, designed to replace the glider for work in and out of small, unimproved airfields. Northrop is building 23 of the planes.



a New Star!

Again, Chase engineering has demonstrated its resourcefulness in answering the need for larger, more durable, more versatile transports. The **C-123** offers utility, versatility, ease and economy of operation on a grand scale. For, within the 77 ft. fuselage and 110 ft. span is a spacious cargo compartment capable of accommodating a 155mm Howitzer and truck, 60 fully equipped troops, 50 litter patients. Truly, Chase has placed a new star in the aircraft firmament.

Chase AIRCRAFT CO., Inc.

WEST TRENTON, NEW JERSEY

STROUKOFF AVITRUC

on that one; he should have snapped back that the Air Force has been insisting on it loudly ever since 1945. Instead, however, he merely replied that he assumed the Air Force planned to use the plane on missions that would require bombing targets as much as 5,000 miles from its home base.

Vandenberg said yes, that was right. But, he added, such a mission would not require a 10,000-mile range. The plane could take off from a domestic base, fly to a target 5,000 miles away and then land at another base. But since the plane would naturally take off from the *nearest* domestic base to the target, this would mean that the landing base would necessarily be an overseas base. Vandenberg thus repudiated, perhaps unwittingly, two pet Air Force theories: the intercontinental-no-overseas-base theory and the 10,000-mile claim for the B-36.

Such differences of opinion among the Air Force high command were refreshing, for they indicated the lack of a predetermined "party line." They also indicated, however, that there is still no precise overall strategic plan for emergency implementation—and it's high time we got one.

'Must' Book on Air Power

While on the subject of strategic bombing, we should like to mention in passing a new book that we think is a "must" for anyone who wants to bone up on strategic air power. Its title is just that—"Strategic Air Power"—and it was written by Dr. Stefan T. Possony. Our first impression was "Who's Possony? Where did he get the background to discuss such a subject?" The book jacket isn't very reassuring—it describes Possony as a former psychological warfare officer for the Navy during the war, who also served with the French government until the fall of Paris, "specializing in the selection of targets for air attack." Since the French Air Force certainly set no records for strategic bombing, this didn't impress us much either.

But when we got into the book itself, our skepticism quickly dissipated. For it is obvious that Dr. Possony knows what he is talking about and that his book is the result of a very careful analysis of all phases of air warfare.

Dr. Possony cautions against over-dependence on the atom bomb. He is quite aware of its destructive power, of course. But he reminds us that "the destructiveness of a weapon is dependent on the *quantity* in which this weapon can be made available." The quantity of the A-bomb is dependent on three main factors: raw materials, industrial potential, and the time of the war. Uranium is not very plentiful, he says; therefore, until more plentiful raw materials can be made fissionable, the manufacture of large numbers of the bomb is precluded. Limitations of the industrial potential also tend to restrict bomb output. And the time element—it is obvious that in, say, 1970, our supply of the bombs will be many times larger than it is today. But if war came, say, before 1955, the number of bombs would still be relatively limited. His conclusion—before 1955 the number of bombs would probably be insufficient to win a war alone. This is not the first time such a sentiment has been uttered. But it is Possony's logical, step-by-step development of the idea that makes his book interesting.

Like any such treatise, the reading matter is heavy at times. Generally, however, it is not as heavy as one would expect such a heavy subject to be. Possony's publishers, the Infantry Journal Press, state: "If you've been wondering who's right and who's wrong in the battle that has been raging over the use of American air power, this book is 'must' reading for you." We agree.

Production Spotlight

Strikes Averted? A round of expected strikes in the West Coast aircraft industry has apparently been averted. The pattern for labor peace in the Los Angeles area was believed to have been set when members of the International Association of Machinists at Lockheed Aircraft Corp. voted last week to accept the company's latest proposal on wages and working conditions. Major features of this agreement provide for a blanket increase of five cents an hour; about two cents an hour for improvement of "fringe" benefits; $500,000 for correction of inequities; and five cents for merit raises. The union had previously rejected an earlier company offer and authorized a five-day contract termination notice.

When the Lockheed union accepted the new terms, officials of the other aircraft locals at Douglas Aircraft Co.'s El Segunda and Santa Monica plants also moved toward settlement. The CIO-United Auto Workers at Douglas Long Beach and North American Aviation, however, are still holding out. North American's contract with the union has expired but the workers are remaining on their jobs while new contract negotiations are in progress.

Measuring Cost: *An indication of the ever-mounting cost of airplanes was contained in the testimony of Lt. Gen. Edward Rawlings, Air Force comptroller, in the B-36 investigation. The Air Force has two standards of measuring the unit cost of an airplane: a flyaway cost, which includes airframe, government furnished property, amortized engineering and tooling, plus a pro rata share of training equipment, technical engineering data, and static and flight testing; and a total program cost, which is the flyaway cost plus spares and ground handling equipment. The flyaway cost of one Convair B-36, based on the original order of 95 planes, was $3,275,133. The total program cost of a B-36 unit in the original order was $4,692,392. With the addition of four jet engines to each plane, the total program unit cost becomes $6,248,686. The next 75 B-36's, however, will be cheaper, the total program unit cost with jets being $4,732,939. The investment in the B-36 program to date is $988,506,574, with another $27,000,000 in engineering changes under consideration. In addition more of the six-engine bombers will be ordered out of fiscal 1950 funds.*

Helicopters: **Sikorsky Aircraft Division** has received a $1,000,820 Air Force contract for five models of a new helicopter, the H-19A. The H-19A is a modified version of the familiar single-rotor H5 series, featuring a new engine and a substantially altered airframe. The Army is also interested in Sikorsky's commercial S-52 'copter and has ordered a few experimental models, designating them H-18's . . . **Piasecki Helicopter Corp.** has started a Civil Aeronautics Administration certification process for its Navy HRP "Flying Banana," which Frank N. Piasecki feels has good commercial possibilities . . . **Piasecki's** six-place HJP, also a Navy 'copter, has been redesignated the HUP-1. Work has started on the first production model.

Chase Order: *The Air Force forgot to announce one of its production orders this year through an oversight. It was an order for nine Chase YC-122B twin-engine assault transports. Contract cost was $6,497,730, including repairs and equipment for two earlier models. Chase Aircraft Co.'s XC-123 (page 16) is also a good bet for large scale production.*

Industry Briefs: **Northrop Aircraft** will get a $389,409 Air Force contract for spare parts for the three-engine YC-125A assault transport as soon as the President certifies the money . . . The first of four **Martin 2-0-2** transports owned by LAN, Chilean national airline, has been returned to Chile from the Martin plant where it underwent structural changes . . . **Convair** is completing certification tests on a Convair-Liner which the company will use as a demonstrator.—J. J. H.

ADMINISTRATIVE

Robert E. Wieland, Jr., has been elected to fill the unexpired term on National Airlines' board of directors created by the recent resignation of **E. P. Taliaferro.** Wieland has been special representative for NAL at Havana since 1946.

H. S. Gray has been promoted from manager of general ledger and cost accounting for Western Air Lines to the newly-created position of acting director of the budget.

Richard H. King, former president of Trans-Air Hawaii, has joined Trans-Pacific Airlines in an executive capacity. **Thomas H. Cooke** has become president and general manager of Trans-Air Hawaii.

—OPERATIONS—MAINTENANCE—

R. W. Rummel has been promoted from manager of aircraft procurement to chief engineer for Trans World Airline at Kansas City. He replaces **L. R. Koepnick,** who resigned to accept an Air Force position.

Frank A. Kimmons, formerly service analysis engineer for Pan American-Grace Airways in Lima and before that director of maintenance training, has been appointed as purchasing representative in Miami.



Mallinger

Ernest F. Mallinger has been promoted to chief flight engineer for National Airlines. Formerly with Peruvian International Airways and Pacific Overseas Airlines, he joined NAL as a flight engineer last January.

C. A. "Cap" Petry, superintendent of communications for United, has been given a leave of absence to head up the frequency division of Aeronautical Radio, Inc., in Washington. He's a 16-year veteran with UAL and currently is industry advisor to the U. S. delegation to the Second International Administrative Aeronautical Radio Conference in Geneva.

TRAFFIC & SALES

S. E. Russ, formerly manager of the international branch of Trans World Airline's cargo sales division, has moved up to manager of cargo sales, replacing **Robert E. Whitmer,** resigned. Russ will have charge of international air cargo and air mail as well as domestic air freight. **W. E. Pluchel,** manager of mail and express, is responsible for all domestic air mail and domestic air express.



New LAS Head—J. Kenneth Hull, former Lockheed Aircraft Service vice president and general manager, has been elected president, succeeding Cyril Chappellet, who continues as chairman of the board. Hull has been with LAS and the parent manufacturing company since 1941.

Stanley Washburn, Jr., has been appointed promotion director for Pan-American Airways, concentrating on advertising tie-ins, merchandising promotion and special events. He previously held the same position with American Airlines.

Andrew Myzer, formerly with United Air Lines in San Francisco, has been appointed west coast representative for Sabena Belgian Airlines, with offices in the Elkan Gunst Building, San Francisco.

John S. Shirk, formerly sales representative for American Airlines, Philadelphia, has been appointed sales manager at Albany.

Donald V. Alexander has been appointed Montreal traffic manager for Northeast Airlines. Formerly supervisor of maintenance at NEA's Montreal base, he was transferred to the traffic department early last year.

Arthur LeVove, for 14 years district publicity manager for United Air Lines in Los Angeles, resigned last month to become manager of press relations for Pan-American Airways in Los Angeles. He is succeeded in the UAL post by his former assistant, **Bill O'Hern.**

B. J. Talbot, formerly Philippines traffic manager for Northwest Airlines at Manila, has been named to NWA's eastern regional traffic staff at New York, to work closely with travel agents.

Thomas Bready, traffic supervisor for Pan American Airways at San Francisco has been transferred to Hong Kong in the same capacity.

T. R. Nolan has been named assistant director of cargo traffic for Northwest Airlines with headquarters in St. Paul. He joined NWA in 1937 and previous to his new assignment was supervisor of cargo sales.

Ralph W. Rossiter, formerly special cargo sales representative for Panagra at Buenos Aires, has been appointed acting cargo traffic superintendent with headquarters in Lima. He joined the company as a purser in 1935 and was transferred to the traffic office in B.A. in 1940.

William H. B. Ortwin, former district sales manager for Pan American Airways in Singapore, has been named district traffic manager in Tokyo, replacing **John J. Barbagelata.** The latter has returned to his regular position of cargo sales superintendent of the Pacific-Alaska Division in San Francisco.

Others in the News

Charles L. Gallo, former general sales manager for TWA's international division and former vice president-traffic of TACA Airways System, has been elected president of Air Express International, New York air freight forwarder and travel agent, and its wholly owned subsidiary, Surface Freight Corporation.

R. C. Blaylock, former chief engineer of the airplane division of Curtiss-Wright Corp., has been named director of engineering to replace **W. Ken Ebel,** who



Blaylock Ebel

resigned to accept a position as vice president of Canadair, Ltd., Montreal. Blaylock joined the C-W organization in 1929 and his accomplishments include the designing of the Curtiss Helldiver. Ebel had been a vice president of the Glenn L. Martin Co. before joining C-W in March, 1948.

C. J. Tippett, a veteran of 19 years of flying with 8,000 hours logged, has been named South American representative of the International Civil Aviation Organization with headquarters in Lima, Peru. A former CAA inspector, Tippett has had wide aviation experience in South America.



Fred M. Glass

Glass Directs Airport Development for NYPA

Fred M. Glass has resigned the presidency of Air Cargo, Inc., which organization he has headed since its founding in 1947, to accept the position of director of the newly-created department of airport development in the Port of New York Authority. Glass was vice president-traffic for Capital Airlines before taking the ACI job, and before that had been with the Air Transport Command, American Airlines and the Civil Aeronautics Board.

The new department he will head in New York was created following the resignation of James C. Buckley, who had been director of the office of airport development under the department of port development of the Port Authority. Buckley has opened a consulting office at 331 Madison Avenue, New York. He will be retained by the Port Authority as airport consultant.

Washington Aero Board

Four new commission members have been named by Gov. Arthur B. Langlie to the six-man Washington State Aeronautics Board. New members are: Harold M. Murphy, John N. Lavin, Benjamin F. Smith, W. O. Wilkstrom. Retained were: A. Elliot Merrill, and Gordon Quarnstrom. The new commission is to select a successor to Joseph P. Adams, present state director of aeronautics.

Speed Record

Pan **American Airways** set a new Gander-London record of 6 hours 52 minutes on Aug. 9, then clipped four minutes from the record the following day on another Stratocruiser flight. Average speed over the 2,380 mile route on each of the flights was about 350 mph. Previous record of 7 hours 21 minutes was held by a BOAC Constellation.

Airline Commentary

By ERIC BRAMLEY

CAPT. BARNEY BURNS, of All American Airways, is not only a good pilot; he's also one of the company's best public relations representatives. A couple of weeks ago, an AAA Pittsburgh-Washington-Atlantic City flight had been delayed in Pittsburgh, and when it finally reached Washington, the maintenance department indicated that it might take several hours to iron out a mechanical difficulty. It was a busy weekend and AAA stood to lose substantial revenue. But Capt. Burns decided that now was the time to come to the aid of his company. Let's have Bob Love, AAA president, tell the story from here: "With the ticket agent on duty, he organized a tour of the Washington National Airport, which included a personally-conducted trip through all the essential functions at the airport, such as airways traffic control, control tower, the basement area where cargo and baggage are handled, and various airline operational activities. This proved of such intense interest to the passengers that after a four-hour delay, not a single passenger presented his ticket for cancellation to seek other means of transportation. Everyone got back on the airplane and we flew the delayed flight to Atlantic City. Almost without exception, these people made favorable comments as to the consideration displayed by the pilot in his concern of their situation, and the splendid job he did as 'master of ceremonies.' I feel that this is the type of activity on which the future success of this company can most certainly be predicated." As we've said before, the pilots who are public relations men—and there are an increasing number—are making a valuable contribution to their companies.

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A note from Fred Hunter, of our west coast office: "After more than 20,000 hours, Dick Bowman, who has been flying for United Air Lines since 1926 when he started with a predecessor company, Pacific Air Transport, has decided to retire from flying. But Dick is still too enthusiastic about the airline business to give that up too. So he's transferred from the cockpit to United's traffic department in Los Angeles. Dick was always one of those pilots who did a bang-up job selling air transportation to the passengers aloft. He's likely to turn out to be one of the best traffic salesmen United ever had."

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We have been receiving complaints about the sad state of ladies' restrooms at some of the airports served by the airlines. The complaints include the points that these restrooms are dirty and in generally bad shape, that there's the seemingly ever-present nickel or dime charge, that there's an attendant always with palm open for a tip, that paper towels are invariably absent, and many others. Says one observer: "A smart airline would hire a gal to visit every airport and make a detailed report, just like oil companies do with their filling stations. Airlines appeal to women travelers—it's the cleanest way to travel. But the restrooms at some airports are on a par with the old railroad terminals." The latter statement is a horrible indictment. How about it? Any of you care to add an opinion?

•

The Seattle-Tacoma International Airport was being dedicated last month and Northwest Airlines decided that it was an appropriate occasion to christen one of its Boeing Stratocruisers. Wishing to use an impressive bottle of water for the christening, Al Wash, NWA public relations representative, messaged traffic men in Alaska and the Orient to send water from some point of "historical significance." The cooperation was gratifying, and pretty soon he had water from the moat around the Tokyo Imperial Palace and from other historical spots. But A. B. Hayes, NWA representative in Anchorage, Alaska, had a different idea. He sent a bottle of charged water from an Anchorage bar. Far from being put out, Wash included this little prize in the blend. After all, an Alaskan bar probably has more history connected with it than a lot of other spots we could name.

•

Odds and ends: Letter from Jack Robson, airport management consultant for CAA down Texas way, informs us that he was having lunch at El Paso Municipal Airport the other day with Don Self, airport manager, and the menu was headed, "Enjoy a delicious ocean fresh via air freight." Wasn't until the next line that you discovered they were talking about lobsters. Robson said he's glad to see air freight has developed to the place where it's moving oceans . . . The Ford tri-motor that TWA used during its 20th anniversary averaged 81 mph on its 3,250-mile journey. The owner, Clint Johnson of Livermore, Calif., thinks it will still be around for the 25th anniversary.

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Improved Weather Service Promised by WB-CAA Tests

By WILLIAM D. PERREAULT

They've started to do something about the weather. Not weather in general, but weather as it affects the schedule reliability of the airlines, the reliability of executive transports as business vehicles and private airplanes as transportation which can compete favorably with other forms of transportation.

The activity is in the field of predicting weather more accurately, measuring it where it counts and getting the information to other pilots immediately. While the program is very fundamental in its design, it promises immediate results. It includes the establishment of "end of the runway" weather observation stations, new weather reporting procedures, a chain of volunteer observation stations and new equipment to simplify the task of accurate reports.

Washington Tests. Last week the first and most important step was initiated at Washington National Airport. The Weather Bureau started to operate the first "end of the runway" observation station. Whenever the minimums get below circling minimums, 500 ft. ceiling and 1½ miles visibility, the WB will send a man and equipment to the approach end of the instrument runway to make on the spot checks.

As these checks are made the information will be radioed to the control tower by means of mobile, two-way communications equipment which is being supplied by CAA and operated by Weather Bureau personnel. Information obtained in this manner will be used to determine flight operating minimums.

This will do away with the long standing complaints of the instrument weather flier. While the control tower might be echoing minimums measured at the administration building or its immediate vicinity, minimums that often made it necessary to seek out an alternate airport, the pilot has frequently been able to see the runway and operate virtually on VFR.

Possibly worse from the standpoint of safety, these weather reports give the pilot a false sense of security when they are better than those existing at the end of the runway. On such occasions the pilot lowers his ship through the overcast expecting to break through at any second, finally breaks through with marginal visibility and practically on the ground.

Revamped Ceilometer. During the tests at WNA a new ceilometer will be used to insure even greater accuracy in ceiling reports. The present day equipment is designed to provide minimums in reporting ceilings from zero to 3,000 feet. There are claims that some accuracy is sacrificed at both extremes. The new ceilometer has been modified to provide less scope and greater accuracy in the critical area involved in instrument weather operations. It has been located at the end of runway 36, the instrument runway at WNA.

Present day 24 hour systems use a beam of light which rises vertically above the test station to the point where it strikes a cloud. An automatic scanner, mounted some 1500 feet horizontally from the beam, and operating both day and night, travels the length of the beam providing a recording of the cloud ceiling level. The scanner is moved in to a position about 250 ft. from the light beam in the new instrument configuration.

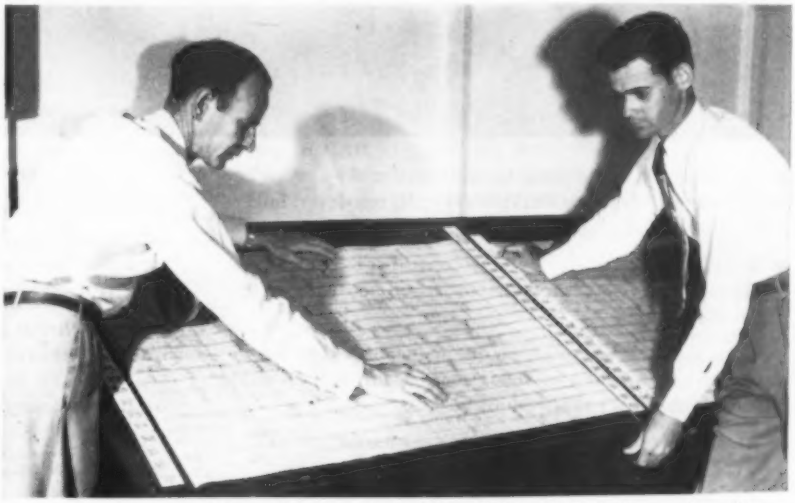
An inclinometer is used as a manual operation at the runway-end ceiling light rather than the automatic scanner. Since this latter system will not be usable in daylight hours, a helium filled balloon will be used for daytime ceiling observations.

The tests at WNA are designed to provide new data on the requirements for such services. It will establish how many people are needed to carry on runway observations, cost figures, benefits derived, possibility of drafting airport or airline personnel for observation agents, etc. If the answers are favorable, the WB will initiate a program to use similar services at 30 leading airports, as requested by the Air Transport Association. These airports were picked on the basis of traffic density and known weather conditions.

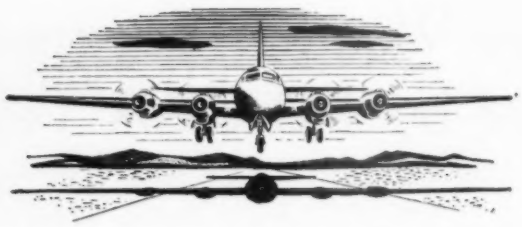
Visibility Checks. Although the visibility measurements at WNA, during the trial tests, will be made by visual reference to local landmarks, a new device to measure visibility will soon be put into operation at Idlewild Airport in New York. This device will consist of precision ground reflectors, based on the same principal as those used in highway markings, mounted along the runway length. A special light projection will be used to check how many of the accurately spaced lights are visible under any given condition.

New Stations. The Weather Bureau operates 245 airways hourly reporting stations at an annual cost of between $25-$30,000 each Many areas of the country lack adequate coverage for optimum flight advisory service, the most stringent of all weather forecasting. To fill in the obvious gaps, at a minimum cost to the government and to aviation, the Weather Bureau is now inaugurating the first of a series of volunteer reporting stations to be known as Cooperative Aero Weather Reporting Stations.

The trial runs are now being programmed in Pennsylvania through the State Director of Aviation. Four points within the state of Pennsylvania which are critical spots as weather data sources, but are not covered by routine



Winning Idea— Shown above are J. A. Sherry (left) and T. J. Townsend working on the scheduling graph which earned them a joint award of $500. The system devised by these two Pan American employes shows where the plane is, how much flight time it has, and when it is due for servicing or overhaul. By keeping close track on the airplanes activities and needs, the graph has made it possible to improve scheduling, enter airplanes into overhaul at a more acceptable rate and consequently level out work load peaks.



RPM and RHYTHM under the pilot's finger-tip control

PHOTOGRAPH COURTESY AMERICAN AIRLINES

● CURTISS AUTOMATIC SYNCHRONIZATION makes propeller RPM control and engine RHYTHM a simple, one-lever, finger-tip operation for pilots of modern multi-engined airliners.

● A single lever propeller RPM control — located in the cockpit — establishes the constant speed setting for each flight condition.

. . . and at the same time maintains accurate synchronization — uniform RPM — of *all* engines through an automatic synchronizer master unit.

● As a result, CURTISS AUTOMATIC SYNCHRONIZATION . . . . . eliminates noisy, tiring, off-rhythm engine "beat."

. . . releases the pilot for other important duties during *take-off, climb, let down* and *landing.*

. . . assures more comfort and relaxation for himself, his crew and his passengers.

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CURTISS ELECTRIC PROPELLERS

WB stations, have been chosen to provide data on which to base future action. During daylight hours, volunteer workers at these four points will make bi-hourly reports of ceiling, skycover, visibility, weather, wind direction and speed plus temperature and dew point.

These observations will be telephoned or telegraphed over public lines to the nearest WB station where they will be picked up, screened as necessary and placed on the proper circuits for distribution. The total cost of operating one of these stations for a year is estimated at $1,000 by the WB. Of this sum, 90% is expected to be communications cost.

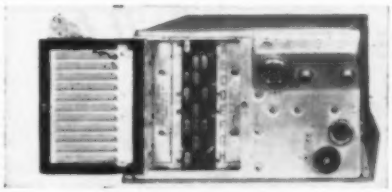
If the Pennsylvania trials proceed as anticipated, the WB will start spreading the service until it will ultimately provide about 200 more stations across the country. Minnesota will be the second state to get cooperative stations, according to present plans.

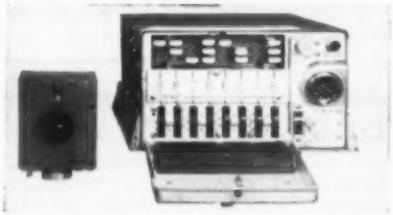
New Handling. Finally, the Weather Bureau, CAA, and airlines are going to fill in another important gap. A concrete program for transmitting all pilot weather reports to a central point, reviewing them for new information and providing first class transmission service for informative weather data has been agreed upon.

There has been such a program on paper before. This time the agencies have set up a working program with assigned responsibilities and new leadership. Everyone involved in the basic planning is convinced it will work. The primary trouble with earlier programs has been that the airlines have not filed the in-flight reports with the Weather Bureau and the WB has been unable to expedite the few reports that were received. The condition became progressively worse.

The lack of adequate communications lines has been a contributing factor and will remain the critical item in the ultimate success of the program. The national circuits, class A service, on which the weather data is handled, have been filled to capacity. To aleviate this condition, the WB is going to revamp reporting procedures to minimize words. If the pilots agree, certain fair weather reports will be entirely eliminated. This will be a progressive program with ever increasing space available for important reports, according to Dr. Francis W. Reichelderfer, chief of the Weather Bureau. Also, CAA will revamp communications equipment to handle 75 words per minute instead of 60.

To expedite the pilot reports of existing weather, the CAA and WB will handle this valuable data through revised channels which will insure that every pilot interested in the weather will have the benefit of weather observations made by pilots flying the affected areas. Whether checking through the local control tower or on the national WB circuits, the pilot should get up-to-the-minute observations by flight personnel.





Improved Model—These photos show the modified AN/ARC-3 airborne VHF communications sets developed by Schuttig and Co., Inc. in Washington, D. C. Civil Aeronautics Administration has contracted with the company to modify over 100 ARC-3 sets to this new arrangement which provides 24 transmitting and 24 receiving channels. The 24 position rotary frequency selector can be used for matched frequencies or cross band operation. Frequencies can be grouped with practically no restriction. Several airlines are reported interested in the rework.

ICAO Moves to Control Aircraft Operating Weights

The Council of ICAO has adopted two resolutions which would tend to enable the country of manufacture to exercise more extensive control over the operating weights of aircraft than is presently enjoyed. The proposal has been strongly advocated by CAB with the view toward preventing foreign nationals from operating such aircraft as the Douglas DC-3 in U. S. territory at higher gross weights than allowed for our own operators.

In some instances, according to CAB, these aircraft are being operated over parallel routes, in competition with U. S. operators and into the same airports but at weights considerably in excess of U. S. regulations.

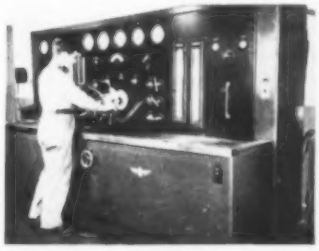
In the case of the DC-3, which has been operated at these high gross weights in the military services of this country and by foreign nationals for a number of years, the foreign country could still operate at the higher weights authorized within other countries. However, any other state would be authorized to prevent operations over or into its territories at weights in excess of 26,200 lbs.

The wording of the resolution is such that some U. S. operators using DC-3 aircraft in foreign states could be limited to a maximum of 26,200 lbs. by that state even though the ship is one presently licensed for weights of 26,900 lbs. within the U. S.





Section of Maintenance and Test Dept., National Aircraft Maintenance Corp., Hangar No. 8, Newark, N. J. Airport. Shown are: Test Machines for Fuel, Vacuum, and Hydraulic Pumps (1), Fuel Booster Pumps (2), Aircraft Generators (3), Aircraft Heaters (4). Other Test Machines not shown include: Hi-Lo Tension Magnetos, and Propeller Governors.



Testing fuel pumps using the Greer Combination Test Machine, Model FVHP 20-1H.

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Arcata Facilities Give SWA Record Low Minimums

A significant step toward the goal of all-weather flying took place when the CAA approved 100-ft. ceiling and ¼ mile visibility for Southwest Airways' passenger planes at Arcata, Calif.

Cutting in half the lowest minimums previously granted to any airline operating under instrument flight rules, the CAA approval is indicative of the increased schedule reliability the airlines will be able to obtain through the effective fog penetration power of high intensity lights.

The new minimum visibility requirement is the result of a series of test flights by Southwest crews working with the technical personnel of Transocean Air Lines, contract operators of the Landing Aids Experiment Station at Arcata.

The final proving runs were made by Southwest's chief pilot, J. W. Brown, with Capt. C. L. Kinamon and First Officer E. E. Spencer. They were accompanied by A. D. Niemeyer, CAA superintendent of flight operations for the Sixth Region at Los Angeles; Clandy Schmid, coordinator of CAA's San Francisco district office, and Howard White, CAA safety agent.

Zero-Zero Tests. The proving flights were conducted under conditions varying from zero ceiling and zero visibility to the approved 100-ft. and ¼ mile and were described as routine in every respect. The tests under the zero-zero conditions were so successful, Southwest felt it actually could operate safely under such conditions at Arcata and applied for permission to do so. Ted Mitchell, v.p. of Southwest, said the high intensity lights enabled the Southwest crew to come in contact from 200 ft.

The high intensity lights at Arcata are the slopeline approach lights to which have been added a series of transverse light bars. Addition of the bars provides a further aid to pilots in determining the attitude of their aircraft and also their progress toward the runway. The bars were added to the system at the suggestion of Dr. M. A. Garbell, technical director-consultant at LAES.

Mitchell expects regularity of Southwest's schedules will be increased to near 100% under the new minimums. In the past, morning and evening schedules into this high fog airport have been somewhat irregular due to the unavailability of personnel to man the FIDO system except during regular working hours at LAES.

The new authority does not affect Southwest's previously authorized operations at the station with the manufactured weather of FIDO. This authority was granted in Nov., 1947 and for almost two years Southwest thus has been the only scheduled airline permitted to use manufactured weather in regular operation.

Automatic Reservations Plan Considered for N. Y. Area

If recommendations of the Automatic Reservations Committee of ATA are accepted, a budget of $10,000 will be established for the salary and expense of a project manager who will make a survey regarding installation of automatic reservations equipment in New York. The equipment would be installed on an experimental basis to handle reservations for all the airlines serving the New York area.

Recommended for the position of project engineer to handle this program was A. W. Regan of Aeronautical Radio, Inc. The committee has drafted a set of basic requirements to assist the manufacturers in the design and construction of this type equipment. The specifications are very general and would only serve as a guide with variations to improve the ultimate performance welcomed by the committee.

Daily Plane Utilization

Domestic

		May	June
AA	2 eng. pass.	4:47	4:55
	4 eng. pass.	7:28	7:47
	cargo	4:28	4:34
Bnf.	2 eng. pass.	7:17	6:05
	4 eng. pass.	5:28	6:57
Capital	2 eng. pass.	9:21	8:51
	4 eng. pass.	8:17	8:31
	cargo	3:13	3:32
Carib.	2 eng. pass.	3:58	3:37
C & S	2 eng. pass.	9:14	9:03
	4 eng. pass.	6:21	7:23
Col.	2 eng. pass.	5:30	6:02
	4 eng. pass.	....	6:14
CAL	2 eng. pass.	6:23	5:41
Delta	2 eng. pass.	7:42	7:45
	4 eng. pass.	5:28	5:16
	cargo	5:58	6:24
EAL	2 eng. pass.	11:03	10.43
	4 eng. pass.	8:22	8:29
	cargo	7:14	5:44
Haw.	2 eng. pass.	4:27	4:42
	cargo	1:45	2:58
Inland	2 eng. pass.	9:41	9:59
MCA	2 eng. pass.	8:20	8:10
NAL	2 eng. pass.	6:17	6:34
	4 eng. pass.	7:10	7:01
NEA	2 eng. pass.	5:38	5:59
	4 eng. pass.	1:03	:50
NWA	2 eng. pass.	4:52	5:01
	4 eng. pass.	10:08	11:07
	cargo	4:05	4:18
TWA	2 eng. pass.	7:43	7:50
	4 eng. pass.	9:25	9:32
	cargo	5:52	5:56
UAL	2 eng. pass.	6:12	6:24
	4 eng. pass.	6:55	7:05
	cargo	4:31	4:47
WAL	2 eng. pass.	4:55	5:28
	4 eng. pass.	1:54	1:31

Basic idea of the automatic system is to record electrically the number of seats available for all flights and then permit agents to draw on these provisions by the simplest means possible. The system would insure against oversales and provide status reports on request.

Transocean's Arcata Contract Renewed

Transocean Air Lines' contract to manage, maintain and operate the Landing Aids Experiment Station at Arcata, Calif., has been extended to June 30, 1950. Transocean has been the prime contractor at the experimental station for the last two years.

Experimental work under the contract extension will be concentrated primarily on approach and runway-marker light patterns. Transocean has a civilian staff of 100 at Arcata.

Among the Suppliers

MAGNUS Chemical Co. of Garwood, N. J., has announced a new program of free production test cleaning service making their elaborate facilities available to interested companies for working tests of chemicals and procedures. Magnus has two types of cleaning tanks and four mechanically agitated cleaning machines with three types of agitation plus turntable spraying and rinsing machines. The facilities make it possible to evaluate chemicals and equipment, and check costs, time and related data.

Charles W. Wood, formerly chief engineer with Jet Heat, Inc. of New York, has joined **Standard-Thomson Corp.** of Dayton, O. as design engineer. Standard-Thomson Corp. is an aviation parts manufacturer . . . The technical processes division of **Colonial Alloys Co.,** Philadelphia, Pa. has announced a process which will bring aluminum and its alloys, including those alloys containing copper and other assemblies of alloys, to a mirror-bright finish. Known as "mironizing," the new process consists of a series of simple immersions in aqueous solutions. The process is available to industry or production can be handled on a contract basis.

Lear, Inc., has formed a missile controls design group at their Lear Cal Division on West Pico Blvd. in Los Angeles. Primary purpose of the group will be to handle military contracts for design and development of automatic controls systems working in direct contact with west coast manufacturers . . . **Tinnerman Products, Inc.,** plans on building an ultra-modern plant on Brookpark Road in Brooklyn Village, Cleveland, O. at a cost of $1,500,000. The new building will house 150,000 square ft. of manufacturing and office space in a one-story structure . . . **Plastic and Rubber Products, Inc.,** manufacturers of O-ring hydraulic seals made from various synthetic rubbers, has announced plans for a $125,000 expansion program which will see the construction of two new buildings to house offices and plants.

Extra Section



By William D. Perreault

WHILE there is considerable concern in some circles in the U. S. over the growing size of the operating crew required on transport airplanes, in Great Britain this doesn't seem to be an issue. Press announcements on the 140-ton Saunders-Roe SR-45's indicate that the giant flying boat will carry 100 passengers and a crew of 25. Ten of this number will be stewards and stewardesses who will "administer" to the needs of the passengers. Three of the boats are on order for British South American Airways which is now being taken over by BOAC.

•

Continental Air Lines has completed the installation of omni-directional, VHF navigation equipment in their entire fleet of airplanes. Total cost of the installation, which Continental says is the first airline fleet to be completed, was about $75,000. Reports are that Continental's pilots are very pleased with the new installation.

•

Gordon C. Sleeper, vice president of Frank B. Hall & Co., Inc., aviation insurance brokers of New York, told members of the Corporation Aircraft Owners Association that they practically establish their own insurance rates when they hire their pilots. He claimed that pilots holding Air Transport Ratings were looked upon as good risks and that extensive checks were made in each case of new insurance coverage to see what kind of a pilot the company employs. According to his listing, the type of pilot was the first consideration, quality of maintenance used was second and the make of plane third on the list of insurance considerations.

•

Colonial Airlines has made changes to the locking mechanism on the integral step door of their DC-3 airplanes to provide additional safety in checking that the door is properly locked. They have modified the conventional locking mechanism to a two position device by welding the centering cam to the bayonet actuating cam. Formerly the handle always returned to neutral after the lock was "locked" or "unlocked." Now the handle remains in the active position.

•

EAL is having unusually good results with an acid proof paint made by Nukem Products, Inc., 103 Colgate Ave., Buffalo, N. Y. They are using it for battery trays and compartment walls, lavatory areas, on parts subject to exhaust gases and similar applications. It can be had in all colors or clear for mixing with aluminum.

•

The prototype Super DC-3, which has been flying since June 24th, been using Skydrol in place of the regular hydraulic fluid used in most present day systems. Skydrol is the Douglas-developed, non-inflammable hydraulic fluid which is being manufactured by Monsanto Chemical Co. The Super DC-3's will be available equipped throughout for use of Skydrol, which requires special gaskets, packing material, etc. In addition to its safety value, the developers of Skydrol claim a high viscosity index and lubricity which extends the life of pumps and other moving parts.

•

The Gould Storage Battery Corp. feels that improper maintenance and charging is robbing industry of from 30-50% of its battery capacity. For the 23rd time, Gould will start a week long training program for supervisors, engineers, mechanics and others dealing in battery care, November 14-18 at their Trenton plant. The course includes theory of operation, battery design, electrical theory, battery layout, charging methods and maintenance procedures plus laboratory and shop projects. A 13-page bulletin regarding this service can be obtained by writing to J. A. Gilruth, School Director, Gould Storage Battery Corp., Trenton, N. J.

SPARK PLUG ELBOWS



Spark plug elbows manufactured by the Electrical and Mechanical Design Corporation are made to meet the rigid specifications of the military services.

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Phone: Trinity 1-9260

Washington, D. C. Office
1346 Connecticut Ave.
Washington 6, D. C.
Phone: Hudson 7313

NEW PRODUCTS

Serv-A-Plane

Bowser, Inc., Fort Wayne, Ind., has designed the 285 Skyway Serv-A-Plane, a compact fuel dispensing unit for fueling airplanes. The unit features a hose rack with a 50-ft. hose for normal fueling operations mounted on a hose rack



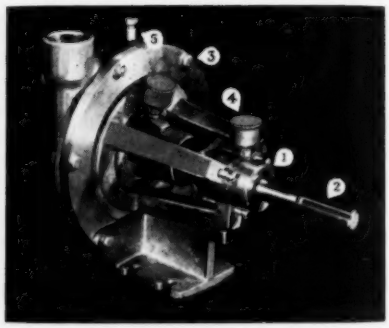
which swings through a 180 degree arc.

The iron framed dispensing unit has a 23½ x 18-inch base and a height of 57½ inches. Included in the unit are two illuminated advertising panels, dual flow indicators showing gasoline is being delivered, interlock to prevent a new pumping cycle until the money indicators are reset to zero, an air chamber, a ½ hp., vapor-proof motor or alternate choice at extra cost, computing mechanism synchronized with price per gallon for gallonage up to 99.9 and money to $9.99.

The unit also contains a self-closing nozzle, and centrifugal water separator.

Aerial Spraying Pump

Columbia Exporters, Inc., 1105 S. E. Morrison St., Portland, Ore., has announced a new aluminum centrifugal pump for aerial spraying installations.



The SIMPLEX PUMP is impervious to ordinary spraying chemicals.

Cut shows thrust bearing (1) and stainless steel shaft (2) for wind-driven propeller drive. Discharge position can be rotated at 60° intervals for most convenient installation. Oversize grease cups (4) assure adequate lubrication. Unit has needle type bleeder valve (5) and is available in ½, ¾ and 1 in. sizes.

Temperature Control

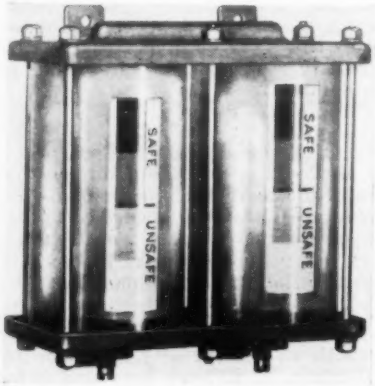
AiResearch Manufacturing Co., 9851 Sepulveda Blvd., Los Angeles 45, Calif., has perfected an electronic regulator to control the extreme temperature variations in high-speed, high-altitude aircraft. It can be utilized for cabin temperature control, oil, fuel and engine temperature regulation, or anti-icing systems. Unit weighs only 4½ lbs. and will fit in an area of less than six in. square.

The regulator transforms electrical signals, received from highly sensitive temperature anticipators (extremely low mass pickups), into command signals for electrically actuated by-pass valves. A manual control allows the pilot to override the regulator.

The unit is being manufactured for the Boeing B-47, the North American F-86 and the Northrop F-89.

Filter-Dehydrator

Lear, Inc., Romec Division, Elyria, O., has developed a filter-dehydrator for use in insuring moisture-free pressurizing of engine ignition harness, to insure dry air in vacuum or pressure systems, etc. The two transparent tubes contain Grade A high absorption capacity, silica gel. Relative humidity of 0, 20, 40 and 60% are indicated as



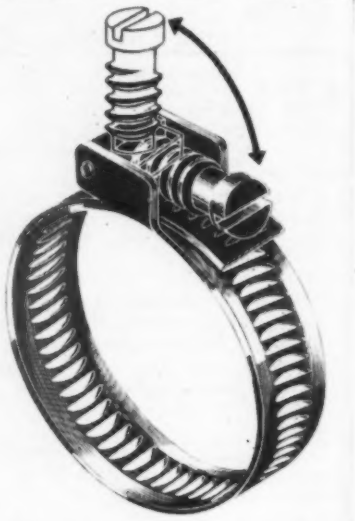
colors change to the shade of the index card on the outer housing. The model shown has 60 cubic inch volume and a capacity of 6-8 ounces of water vapor. Wire mesh screens and filter pads are used in addition to the silica gel to remove air dust and foreign matter. The silica gel can be reactivated for reuse. Four sizes of dehydrators are used and these may be modified in diameter and length to meet installation requirements.

Inquiries about equipment on this page may be sent either to AMERICAN AVIATION or direct to the manufacturer.

Readers looking for sources of special equipment are invited to write to AMERICAN AVIATION's equipment editor. Every effort will be made to provide information on manufacturers and suppliers who are in a position to furnish or develop needed airborne or ground equipment.

Hose Clamp

The ACTUS Corp., Mount Vernon, N. Y., is now producing its Eagle hose clamp which employs a hinge principle for quick initial engagement and a gear-type screw for fast take-up after the clamp is in place. The clamp,



available in five sizes covering hose range of ⅜ through 3¼ in. inside diameter, can be installed before or after assembly of the hose connection.

The Eagle clamp allows substantial time savings in production line installations and in repair or replacement use.

Drum Sander

American Diamond Saw Co., 519 N.W. Park Ave., Portland 9, Oregon, has developed the new Cone-Loc Drum Sander for use in buffing, polishing and grinding operations. This new grinder makes it possible to use ordinary strips of abrasives rather than buying the relatively high priced endless belt brasives. The device is a balanced aluminum split drum cushioned with rubber and held together by pins that recede out of the



way when the cone washer is tightened. During operation the wheel does not lose diameter. Savings up to $18 on 50 yards of cloth abrasive are claimed by the manufacturer. Available (rubber cushioned) in sizes from 6¼ in. to 12 in. diameter and various standard widths and bores. A 6¼ in. felt cushioned sander is also available.

"Direct operating cost only

1½¢ per seat-mile

ON THE

CONVAIR*-Liner"

says

Stanley R. Shatto

Vice President, Maintenance & Engineering
WESTERN AIR LINES, Inc.



"The Convair in its initial operations on Western's system has proved that the combination of increased speed and greater load capacity in a twin-engine airplane will produce the economic operating results for which we had hoped," says Mr. Shatto. "In the first five months of full fleet utilization we have found that the Convair is turning in a cost performance of 1½c per seat-mile, based on direct operating expense."



This advertisement in all daily newspapers on the Pacific Coast recently announced Western Air Lines' all-Convair service from Seattle to San Diego.

*Convair

REG. U. S. PAT. OFF.

Consolidated Vultee Aircraft Corporation
San Diego, California • Fort Worth, Texas

Break the grip of SNOW and ICE!

Walter Snow Fighters keep your airport operating during snow storms-- have main runways clean and safe within hours after the storm ends.





• 250 hp. Walter Snow Fighter, with giant V-Plow and two hydraulically controlled side wings. Total clearing width 28 ft., at 20-30 mph.



• 240 hp. Walter Snow Fighter equipped with One-way Front Plow, Right Speed Wing, Center Scraper Blade and 10-ton capacity Sand and Chemical Spreader body. Extremely valuable unit for high speed snow removal and ice control.

EQUIP your airport with big, fast, powerful Walter Snow Fighters and cut down the heavy losses formerly caused by days of snow-clogged runways, grounded planes and cancelled flights. These are facts proved at major airports thruout the snowbelt — N. Y. International, La Guardia, Newark, Boston and others.

Walter Snow Fighters are specially designed and built for airport snow removal. They incorporate many vital features found in no other equipment. The exclusive Four-Point Positive Drive maintains 100% traction on snow and ice. This permits clearance at speeds of 20-30 mph. to throw snow far to the side and provides tremendous pushing force behind the plows and wings to disperse snow banks.

Increase your winter income, reduce hazards and cut down snow clearance costs, with Walter Snow Fighters. Have a representative call with full details. Or write for literature.

WALTER MOTOR TRUCK CO.
1001-19 Irving Ave.
Ridgewood 27, Queens
L. I., N. Y.

WALTER
4-POINT POSITIVE DRIVE
SNOW FIGHTERS

Detroit City Airport— A Lesson in Salesmanship

By DAVID SHAWE

Pull all the airlines out of one of the busiest air terminals in the country and what do you have? It could be pretty sad, but there is proof that you can go right on having one of the busiest airports in the country.

Col. C. V. (Bud) Burnett returned to his Detroit City Airport from combat duty in Marine aviation to find that his best customers were getting ready to use bigger airplanes, and also getting ready to move to a bigger airport. With an in-town location surrounded by highly developed industrial and residential property, Burnett couldn't do the obvious thing and push his runways out to take care of larger airplanes.


Burnett

And with a lot of fixed-base operators and private flyers who liked his location, Burnett couldn't urge that the city sell the airport as commercial property and build another all-purpose field farther out.

Most airport problems develop slowly and can be handled one at a time. Detroit City's loomed up all of a sudden as one of the biggest headaches an airport man ever faced. The airport's hangars, biggest in the country just a few years earlier, would look mighty vast and empty when the airline tenants moved out. The passenger terminal would have a ghostly look when ticket counters were pulled out and airline offices vacated. The covered ramp area would look strange with only an occasional little Cub using it to unload a passenger or a student.

Non-Airline Revenue. But Detroit had a big investment to pay off, so Burnett sharpened some pencils and went to work. His assets, in terms of location and facilities, were considerable. His only substantial liability was that he could no longer attract airline revenue. The job was one of developing every possible type of non-airline revenue.

Burnett has done the job. You can go out to City Airport today and find it busier than ever. Every hangar bay is rented and crowded. The terminal has been renovated and every square foot of floor space and office area is occupied. The restaurant is not only busy, but serves better food than airline passengers can get in most terminal restaurants. Even the barber shop still does a good business. The gates to the ramp area still see a steady stream of people.

The CAA's monthly traffic control summaries offer proof of the job that has been done. Only one airport in the country, Cleveland, leads Detroit City in total operations reported—and Cleveland is able to report more than 6,000 air carrier-type operations a month against about 500 at Burnett's airport. He has no local and very little transient military flying to add to the total. But in local civilian flying he is virtually in a category by himself.

Management & Salesmanship. All this activity has not just grown up around a good location in a big city. It represents a fine job of both business management and salesmanship. Good management has brought a marked reduction in operating costs despite increased activity at the airport. Good salesmanship has brought every possible type of aviation activity out to the field.

Burnett's management of City Airport goes far beyond routine housekeeping and bookkeeping. He has a paternal interest in everyone who uses the airport, from the corporations which base their big fleets there to the student who needs disciplining for safety violations. If a fixed-base operator is losing money Burnett regards it as an airport problem and works with him on cutting costs or bringing in new business. If a non-sked freight carrier has idle equipment Burnett is likely to come up with an industrial shipper, or maybe a nearby group of produce growers with an emergency problem. If a private plane owner has a beef about service on the field, Burnett treats it as a personal problem.

Fixed-base operators account for most of the activity at the field, and Burnett watches them carefully and helpfully. Some of them are old-timers like Glenn Barr who can pretty much take care of themselves, but there are a few "typical" operators who are too busy flying or tinkering with planes to pay much attention to the office, and Burnett gives a lot of time to them. Shortly after the end of the war there were 28 operators on the field, but Burnett began to tighten up and after a few bankruptcies and a few mergers the total went down to 20. No new ones have started in the past two years.

Charges Reasonable. Cost of doing business on the field is kept as low as possible. Rents are reasonable ($22.50 a month for flight line offices), no landing fees are charged to field-based aircraft, and Burnett has dropped a former charge of $100 per year for every aircraft powerplant used for profit on the field. The airport takes no percentage or cut on an operators gross business.

Specialization is encouraged. All flight operators give their ground training work to Logan Ground School in the terminal building. Repair and overhaul services such as Anderson Aircraft Radio, Servair, Inc., and Michigan Aviation Co. have space in the big hangar and do a lot of work for corporation fleets as well as for the smaller operators and private owners who use the field or come in from other cities.

More than 40 twin-engine DC-3's, Lodestars, Mallards, twin Beeches and other transport types are among the 331 planes now based on the field—most of them owned by corporations like Nash-Kelvinator, General Motors, Bower Roller Bearing and many others. Some of the corporation operations offices are as busy and as well run as an airline operating headquarters.

Transient corporation aircraft regardless of size pay only a $2.00 landing fee, which includes ramp space and service. The airport offers, in fact guarantees, to obtain hotel rooms for all transient pilots and executive aircraft passengers.

Flying fees account for only 5% of the airports revenues. Single engine planes pay no landing fees whether transient or field-based, except that a $1.00 per landing charge is paid by operators who come over from non-lighted fields for student night flying.

Detroit City Airport's Schedule of Rates

Office & Hangar

MAIN LOBBY

First Floor	$2.50 per sq. ft. per year
Second Floor	1.75 per sq. ft. per year
Third Floor	.90 per sq. ft. per year

FLIGHT LINE OFFICES

$22.50 per month

Main hangar bays are leased out on a yearly basis. Rates are supplied upon request.

T-HANGAR STORAGE RATES

T-Hangar	$25.00 per month
T-Hangar	2.00 per day (Transient rate)
T-Hangar Storage Room	10.00 per month

GASOLINE AND OIL

Shell Oil Company has the exclusive sales privilege for gasoline and oil.

80° Gasoline	33.8c per gallon
91° Gasoline	34.8c per gallon
100° Gasoline	37.8c per gallon (secured upon 4 hours notice)
Oil—40c qt.	$1.60 per gallon

AIRCRAFT FIELD STORAGE

Single Engine	Wing Span	Multi Engine
$1.00 daily—$15.00 mo.	To 40 ft.	$2.50 daily—$35.00 per mo.
1.50 daily— 17.50 mo.	To 50 ft.*	2.50 daily— 35.00 per mo.
2.00 daily— 22.50 mo.	Over 60 ft.	3.75 daily— 45.00 per mo.

* Exception—BT-13's and AT-6's shall pay $18.75 for outside storage.

Main Hangar aircraft storage rates available upon application from base operators.

LANDING FEES

Landing fees for cargo-carrying or passenger-for-hire aircraft shall be as follows:

C-46 or larger	$10.00 per landing
DC-3	7.00 per landing
Lockheed Lodestar	6.00 per landing
Twin-Beechcraft	5.00 per landing
Twin-Beechcraft (intrastate)	2.50 per landing
Twin Cessna or single engine aircraft	2.50 per landing
Corporation-owned twin-engine aircraft (Executive)	2.00 per landing

Storage and landing fees shall be paid by the pilot unless the company has made arrangements to be billed monthly.

Note—None of the landing fees apply to aircraft based at Detroit City Airport.

STUDENT NIGHT FLYING

A charge of $1.00 per landing shall be paid by all non-based flying school operators who use the City Airport as a base for student night flying operations.

Non-scheduled passenger and freight transports pay very reasonable landing charge—$7.00 for a DC-3, $10 for a C-46 or larger plane. Non-sked activity has diminished in recent months, but it has been a substantial aid toward offsetting the loss of scheduled airline revenue. Larger freight carriers like Slick and the Flying Tigers now are using the larger runways at Wayne-Major airport outside Detroit, but Meteor Air Transport still keeps a busy office at City Airport, Nationwide Air Transport operates a profitable daily intrastate passenger service to upper Michigan points, and numerous irregular carriers stop at the field.

Help for Non-Skeds. One of the first things Burnett did when the non-skeds began to operate was to build a freight terminal not far from the center of activity on the field. Leased out to one operator who sub-leases space to others, it represents an investment of less than $15,000 which has already been amortized with direct and indirect revenues.

Another early move to attract new revenues when the airlines pulled out was the construction of a row of T-hangars, the like of which would frighten most airport managers. There are 80 of them all in a row along one side of the field—a lot of hangars for any airport, but occupancy has been almost 100%, at $25 per month rental, there is usually a waiting list, Burnett expects to have the investment amortized in less than the eight years he allowed.

The 40-foot T-hangars, built by International Steel Co., Evansville, Ind., have been particularly satisfactory both for the airport and the occupants. Lift-up doors work smoothly in any weather, storage and work area is ample, and hangar maintenance has been negligible. One of Burnett's current projects, in addition to $400,000 worth of runway and taxi-way projects (including a brand-new E-W runway) is to pave the entire area around the T-hangars so that pilots can drive their cars in and fly their planes out without ever getting off the pavement.

With all the improvements and all the activity, Bud Burnett has kept a businessman's eye on the outlay as well as the revenue. He came back in July of 1946 to find 46 employees and a weekly payroll of $2,690. Now he runs the whole show with only 26 people and a payroll, even at much higher wages, of only $1,784 a week.

Airport revenues for the four months, March-June, 1949, totaled $80,249. Of this, office rents accounted for 11%, hangar rents 57%, flying fees 5%, and concessions 27%.



REDUCE AIRPORT HAZARDS WITH

REALOCK FENCE

A sturdy, tamper-proof Realock® Fence provides adequate protection for planes, passengers and property. Since trespassers cannot wander around runway and hangar areas many hazards are eliminated.

Made of steel wire, heavily galvanized, Realock Fence is nationally known for its rugged good looks, indestructibility and long-lived economy.

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This Unusual Set Can Now Be Converted to Provide All VHF Communication Channels You Might Reasonably Need

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WASHINGTON 17, D. C.

Airport Open House Sells Aviation to Community

By Robert C. Blatt

One of the best methods of acquainting the people of a community with their airport and its facilities is an airport open house party. This is sure to bring a great many people and their families out to the field who would not otherwise go there—and the aviation and flying atmosphere will do the rest.

A recent successful airport open house was held at the Westchester County Airport at White Plains, N. Y., which will provide some interesting ideas to managers and operators who are planning to hold them. Realizing that the success of the open house would depend entirely on the number of people turning out, Robert W. Gallaway, general manager of the County Airport Corp., operator of the field, carefully planned every detail many weeks in advance.

An advertising program was set up. Large two column full length ads were planned and cleverly written to include as many "give away" and "free" items as possible. Detailed directions for reaching the field by car or bus were included. The ads were placed in all the county newspapers to run the three days prior to the event. Radio announcements were made for five days before the open house over the local station.

Signs were placed at all intersections of roads in the vicinity—giving directions to the airport. American Airlines, who uses the airport as a provisional for New York City, cooperated by furnishing one of their Convair Flagships for passenger flights around the area.

Extensive Cooperation. The National Guard placed all their parked aircraft in neat line-ups near the incoming roadway to add to the atmosphere. Special formation and non-stunting maneuvers were made over the field.

The local flying school operator at the field, Westair Flying School, made over 25 helicopter flights and special demonstrations in their new Hiller 360, piloted by Les Morris, veteran helicopter pilot. They were recently appointed distributors for this helicopter.

The local banner-towing operator cooperated with some flights around the airport. A pony ride was set up and proved to be very popular with the kiddies at 15 cents ride—two for a quarter. Free frozen custard and freshly made popcorn was distributed to all children 16 years old and younger. An airplane ride was given free for all adults over 16 who bought a steak dinner in the "Round the World Room" at the airport.

Novelty stands were set up all around the parking area and ramp which sold all sorts of banners, airplane models and knick knacks. Numerous soft drink and ice cream stands were kept busy all afternoon. Brand new Aeronca models were parked in conspicuous positions and salesmen were on hand to answer all questions and demonstrate the planes.

10,000 Attend. The airport was festively decorated with flags and banners to add to the atmosphere of the occasion. The estimated attendance at the open house was over 10,000—with about 3500 cars. Nine flights of 150 miles each (at $2.50 a head) were made by American Airlines, carrying a total of about 300 people. Practically all who flew were first-riders.

According to Manager Gallaway, a large number of the people who attended the open house have been regular visitors to the airport ever since. The concession business and non-aviation revenues have shown a considerable increase and a great many more people are more familiar with their local airport and the facilities it has to offer.



LATEST MODEL planes were shown and demonstrated during Open House. Sales Manager R. E. Patterson points out features of new Aeronca Sedan to W. Hirschaut.



ALMOST 600 pony rides at 15 cents—two for a quarter—were given kiddies. Picture shows Manager Gallaway aiding rider.



25 FLIGHTS with 2 passengers at $5.00 each were made by Les Morris (left) veteran helicopter pilot, shown with Murray Greenman (center) and Tom Hintze, partner-owners of Westair Flying School.



HELICOPTER VIEW of ramp and parking area at Westchester County Airport showing some of the estimated 3500 cars and 10,000 people attending the recent "Open House" Party.



AMERICAN AIRLINES' Convair made nine 150 mile flights around area carrying a total of 300 people at $2.50 each. Most of those taking flights had never flown before.

When you need an *Operation* you call in a *Surgeon*

TO PERFORM IT!

THIS is the age of specialization. General practitioners have their place, to be sure, and sometimes they *have* to be used when specialists aren't available—or when the ailment isn't serious.

But in these days you go to a man who specializes in a particular line of medicine when you want thorough analysis and treatment. Even a general practitioner calls in a specialist when the ailment is serious.

The same idea holds true with aviation publications. If you are setting up an advertising program where selectivity is of vital importance—where dollars can't be wasted—deal with the publication that knows and understands your problems best.

AMERICAN AVIATION magazine is published by a company that specializes in aviation. In fact aviation is its *exclusive* business.

We can't tell you a thing about the plumbing, steel, food, drug and cotton industries. But we *do* know about the aviation business because that's our full-time concern. We don't think about aviation one hour and retail merchandising the next—we think about aviation all the time.

More than that, this specialization means a direct-target circulation. We don't attempt to reach just anyone who happens to be "interested" in aviation. We aren't interested in "the fringe". We are concerned with a truly effective purchasing-power industry readership.

American Aviation Publications is just that—it publishes *four** vital industry services for aviation. It has no other publications to divert its main concentration on a single job. Aviation is not just a side-line—it's our whole job.

Therefore, when you want an advertising job done to a direct-target market, follow the growing parade to AMERICAN AVIATION. We understand your problems and we cover your market.

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AMERICAN AVIATION PUBLICATIONS, Inc.

1025 Vermont Ave. N. W. Washington 5, D. C.

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* In addition to the magazine, AAP publishes AMERICAN AVIATION DAILY, AMERICAN AVIATION DIRECTORY, and OFFICIAL AIRLINE GUIDE.

AIRPORT NOTES

The **$10,000,000 San Francisco airport bond issue** proposed to be voted upon in November would be apportioned as follows: $4.5 million for a new terminal building and concourse; $2.5 million for apron and aircraft servicing facilities in the new terminal area, and $3 million for construction work on basic airport facilities.

Representatives of the Commonwealth of Pennsylvania and CAA officials have been discussing plans to expand facilities of the State-owned airport at **Harrisburg**, the state capital. Field has been restricted to transports of DC-3 size and smaller because of runway length. It is hoped to acquire a strip of land adjacent to the airport from the Army to permit expansion of the principal runway from 3,700 feet to 5,000 feet.

Logan International Airport, Boston, which has never participated in Federal-aid airport grants, would receive a grant of $600,000 under a bill introduced in Congress last month. Funds would be matched by Commonwealth of Massachusetts and City of Boston and would be used for constructing an administration building, for grading, drainage and paving purposes.

Port Arthur, Texas, is leaning toward a lakefront site for its municipal airport . . . Ban on planes without radios using the **Portland, Ore.**, airport has been modified to permit such use if the tower is notified in advance.

CAA Airport Grant Offers

For the four-week period ended August 12, Federal-aid airport grant offers totalling $1,010,960 were made to 30 communities by the Civil Aeronautics Administration, as follows, with class shown in parentheses:

California: Rohnerville Airport, Fortuna (3), $15,842; Fresno Air Terminal (6), $18,058; Hawthorne Municipal (4), $19,498; Imperial County Airport (2), $37,192; Santa Inez Co. Airport (2), $13,440; Sonoma Co. Airport, Santa Rosa (4), $8,722.
Indiana: Terre Haute Mun. (4) $45,000.
Iowa: Davenport Mun. (3), $17,600.
Kentucky: Marshall Field, Georgetown (1), $24,900; Standiford Field, Louisville (4), $162,500.
Louisiana: Shreveport Mun. (5), $5,950.
Maryland: Frederick Mun. (3), $750.
Massachusetts: Fall River Mun. (1), $165,000.
Mississippi: Gulfport Mun. (6), $15,000.
Montana: Glendive Airport (2), $10,760.
Nebraska: York Mun. (2), $24,181.
Nevada: Overton Public Airport (3), $92,333.
New Mexico: Tucumcari Mun. (3), $8,535.
New York: Broome Co. Airport, Binghamton (4), $198,500.
North Carolina: Statesville Mun. (2), $45,000.
North Dakota: Devils Lake Mun. (3), $6,700; Grafton Mun. (1), $11,000; Mandan Mun. (1), $8,700; Minot Mun. (4), $3,000, and Rugby Mun. (1), $5,500.
Oklahoma: Guymon Mun. (1), $9,508.
Tennessee: Lexington Mun. (1), $7,500.
Texas: Hale Co. Airport, Plainview (2), $1,200.
Vermont: Burlington Mun. (4), $20,000.
Washington: Ione Mun. (1), $9,091.

These boosted the Federal-aid grants through August 12 to 888 and the Federal funds involved to $85,302,480.

PRETESTED IDEAS

Raft Weight Reduced

BY SUBSTITUTING nylon ropes for heavy rope generally used on life rafts, Pan American World Airways have been able to reduce the weight by from six to 12 pounds. This was suggested by Mrs. Ruth Fresh, mechanic in the life raft shop of the Latin American Division at Miami, Fla., who is shown in the picture. She also advocated the use of nylon in place of canvas as the material for equipment bags on the rafts. Another reduction in weight followed her suggestion for adopting the waterproof canvas containers for raft first-aid kits instead of the former metal ones.



The total weight reduction due to Mrs. Fresh's suggestion is 12.9 pounds for Air Cruise type rafts and 1.6 for the Goodyear rafts.

Landing Direction Indicator

HERE is a landing direction indicator that can be seen prominently—day or night. It is located to the south of the intersection of the landing strips at Zahn's Airport, Amityville, L. I., N. Y. and was designed and built by Joe Zahn, manager, who is shown in the pictures.

The indicator consists of two inverted V-shaped sections—the long one being white and 15 feet long, indicating the landing strip to be used, and the other shorter one painted an orange color—9 feet long (always at right angles to the other section)—indicating the landing direction and the traffic pattern for the particular strip (whether left or right hand).

Each section has a welded steel tubing frame (triangular shaped) and is covered with airplane fabric doped and painted as on a plane. Light sockets are mounted on the top of each section and are spaced on 24 in. centers. Rubber weather-proof sockets are used with transite bases bolted to the steel tubing upper section member. Twenty-five watt lamps are used, white on the white section and orange on the other. Weather-proof rubber covered duplex #14 wire is used in each section with weather-proof molded rubber plugs and receptacles for flexibility in changing directions of sections.

The two sections are pivoted at the center of the 32 foot diameter circle, using steel tubing which makes them easy to change direction. The ends are fixed in position by steel tubing vertical rods which slide down into holes in the surface of the black bituminous inner surface and the white concrete outer ring.

The black bituminous base material makes a sharp contrast in background to the white and orange sections and prevents grass and weeds from obscuring the sections and interfering with their movement.





New Insurance Program Needed for Lightplane Field

By Burdette S. Wright, Jr.

What has been called a sales-stifling condition exists today in the hull insurance and financing end of the personal lightplane field. A prospective owner not able to pay all cash is faced with two alternatives, neither of which is an inducement to become a plane owner.

One offers a charge of at least 18% over and above the list price of the plane; and the other slightly lower finance and insurance cost, but involves interminable delays, sometimes as long as 60 days, in getting a banker and insuror together.

The first arrangement, the 18% plus deal, is readily available, and enjoys a fair amount of business because it is a quick package deal. The contract calls for a down payment starting at 33%, interest from 5% to 6%, and hull insurance at 12½% to 15½% for new planes, and for used planes the same rate on the selling price *plus 3½% to 4% of the difference between the selling price and the original list price.* Hardly an attractive proposition to someone who's life doesn't depend on owning a plane.

The second alternative is to finance the purchase through a bank. This is easier said than done because the large groups handling aviation insurance for the personal plane consider it a minor sideline and are not set up to put it through quickly enough to satisfy either customer or distributor.

Manufacturers have voiced concern over this situation, and mention package deals such as General Motors Acceptance Corp. and Universal C. I. T. offer automobile buyers. The fact is that several of the large acceptance corporations have stepped into the aviation field, incurred a few losses, and stepped out before resolving a method under which they can make a profit and still give the plane owner a fair deal.

Attractive Field. Right now there are several factors affecting aviation that would seem to make this field attractive to big business. They are: (1) a general slowdown of production and less actual usage of insured planes, hence less exposure to risk; (2) more stringent policing by CAA and state enforcement agencies of reckless flying; (3) operations leveling off—the more solid, experienced and responsible operators left in the business.

In spite of the general reluctance of the big companies to make aviation insurance a major program, there is a buyer's market where the so-called "preferred risks" are concerned. They can best be defined as planes that spend most of their life in the hangar, with occasional operation by highly skilled pilots.

It is only recently that insurance writers have seen fit to insure a hull by the nature of its operation and merits of the operator. It is possible that out of this might come statistics and a history that will benefit the lightplane industry.

For many years insurance rates have been in effect that penalize one phase of aviation for the higher risks in another. On top of this there has been the usual high cost for the mere writing of a policy. It turns out that about 48% of the money paid by an owner for annual insurance goes to cover his risks. The remaining 52% of a typical policy as written today, according to one underwriter, can be broken down as follows:

Agents commission	15%
Underwriter's branch office commission	12%
Home office commission	10%
Engineering and inspection	10%
Insurance company expenses	5%

This breakdown does not apply to insurance available through organizations such as Aircraft Owners and Pilots Association, and one or two small mutuals. They operate at a cost about 20% above the actual cost of the insurance. The coverage is the same.

What the aviation industry needs is help from a large company with experience in the field. The package deal modeled after that for the automobile purchaser is preferred by purchaser and dealer alike.



THE SKIMMER is designed primarily as a two-place amphibian with generous fuel and baggage allowance. It can carry a third passenger or two children by sacrificing baggage space and weight.

Safety Designed Into New Amphibian

Personal safety is the design feature of the "Skimmer," a two-place amphibian that will be in production after January, 1950. The hull of all-metal construction provides inherent crash resistance, while the engine mount is stressed for 20 G's, exceeding the safety belt design requirements. The cockpit layout is clear of all protuberances, and the instrument panel is so located that head clearance is assured when the body pivots about the safety belt. The amphibious design itself is a good safety feature in that it permits a multiplicity of landing areas.

The wing design is equipped with 80% span slotted flaps, providing optimum climb and glide control as well as excellent landing performance. Two degrees of geometric and aerodynamic washout combined with differential aileron action permit complete roll control up to and through full stall. Flaps are controlled by an electronically driven pump, as is the tricycle landing gear. Power plant is the Lycoming O-235C-1, providing 115 hp for take-off; prop is an automatic variable-pitch Aeromatic.

Performance data during the three-month or more flight test period shows the plane to have a 600 ft./min. rate of climb, 650 lb. useful load, and a 600 mile range with one hour fuel reserve at 110 mph cruising. Fuel capacity is 40 gals.

The plane was designed by Colonial Aircraft Corp., Rogue's Path, Huntington Station, N. Y. Tentative price, f.a.f., is $9750.

New Shell 80/87 Octane Gas

Following a series of detailed tests on performance characteristics, Shell Oil Co. is now marketing a new Shell 80/87 octane gasoline on a coast-to-coast basis. The new fuel provides controlled take-off anti-knock rating, as well as a standard cruise rating, and is being sold at the same price as 80 octane fuel.

The new 80/87 octane fuel can be used in some engines of the 450 hp. class previously requiring 91/98 octane. The recent introduction of 80/87 octane fuels provide the first availability of controlled take-off rating fuel for light commercial aircraft.

Tax Deduction Case Sets Precedent for Farm Planes

Any doubt that an airplane used on a farm is a deductible tax item has been dispelled by action of V. N. Davis, a Flying Farmer of Cherokee, Okla.

Refused a deduction on the tax collector's assertion that Davis did not need an airplane to operate his farm, Davis, with the help of National Flying Farmers Association and tax analyst C. M. Conley, of Stillwater, Okla., prepared a brief and requested a hearing on the matter.

When confronted with accurate and complete records of Davis' operation of his plane, the tax collector conceded that the case was a legitimate one and allowed the deduction, which was one-fourth the initial cost of the plane plus operating expenses.

It is anticipated that this decision will be the beginning of the end to a situation where many farmers using aircraft have had to pay taxes on every cent the airplane cost them each year. Flying Farmers Association records reveal that there has not been a uniform system for assessing aircraft throughout the country.

Meeting to Set Standards For Aerial Applicators

Representatives of all industries with a stake in the aerial application of agricultural chemicals will meet in Cleveland Sept. 1 and 2 to decide on a code of operation and business ethics to be followed by operators.

Observers have seen the need for such an organization, and one proposal that will be set forth will be to form an association within the framework of the National Aviation Trades Association, which has been most active in the drive for adoption of the proposed code. Other national organizations to be represented at the meeting are: National Association of Chemical Industries, National Fertilizer Association, American Forest Products Association, Department of Agriculture, CAA and others.

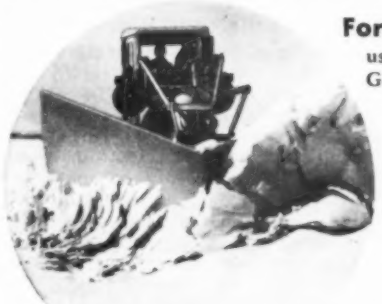
Cuba Drops Entry Permit For U. S. Private Planes

Non-commercial private planes from the United States, piloted by their owners, may now enter Cuba without an entry permit. Only requirement now is that the aircraft be cleared by the nearest Cuban consul, who will notify the Cuban Ministry of Defense by cable of the approximate date and hour of arrival in Cuba and the name of the airport. The applicant pays the cable cost. Complete information about landing facilities throughout Cuba is available to private owners by writing to the Cuban Tourist Commission in Havana.

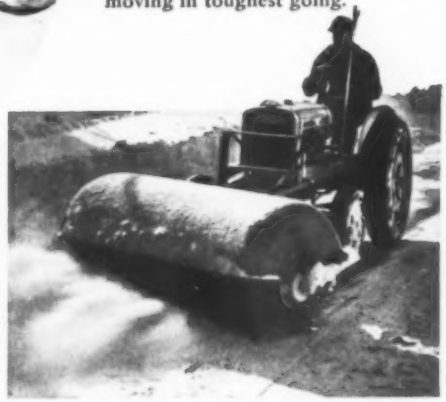
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Aviation Sales and Service



By Robert C. Blatt

Club Cuts Flying Costs: The recently formed New York Flyers Club at George Callinicos' Queens Seaplane Base now has 134 members of the 250 set as a goal. Membership is open to pilots and students at $20 a year for non-service men and women and $10 for service men. Club members can rent planes at the base for $5 an hour instead of the $10 charged non-members. The profits made in the modern and well-equipped restaurant and cafeteria—also at the bar on set-ups at 15 cents a throw—go into the club fund which is redistributed to members in the form of reduced flying rates. Here is an idea that other operators would find profitable.

Beware of the Plane Thief: *The poor operator hasn't enough worries—now it's the plane thief. Andy Anderson's Bonanza was stolen right off the ramp in front of his operation at Milwaukee's General Mitchel Field on the night of July 26th, and is still missing as of this writing. Operators just can't be too careful about leaving keys in planes and doors unlocked. A few floodlights mounted on the hangars and buildings to illuminate the parking ramps at night would go a long way toward preventing thefts of this kind. Thieves and crime hate light.*

Odom to Race at Cleveland: Round-the-world and long-distance lightplane champion Bill Odom will attempt to add more laurels to his crown in the Cleveland Air Races this year. He will fly a special souped-up P-51 which he is now grooming for the race.

More On Light Plane Omni: *G. B. Van Dusen, president of Van Dusen Aircraft Supplies, just completed a 1300 mile trip from Minneapolis to Northampton, Mass., Teterboro, N. J., and back to Minneapolis, flying his Cessna 140 equipped with a Narco VHF omni navigation receiver and transmitter which he used for navigating. Van says he just wanted to prove to himself that navigating by omni is now possible and easily done. He claims that he had no dual time in omni navigation and that he just climbed in the plane and flew entirely by its aid—no trick at all. He reports that plenty of omni stations were in operation and apparently working perfectly to make cross country flying quite simple—right now. He reports tuning in Madison over La Crosse, Wis., a distance of 130 miles—excellent performance for any light plane job.*

Welsch Moves to Roosevelt Field: Jim Welsch's Personal Airplane Sales Corp. has moved from Flushing to Roosevelt Field where he will occupy the quarters in the northwest corner of the field used for many years as manager Jim Guthrie's executive offices and until recently by Gillies Aviation. The building has a most attractive lounge for visiting pilots and other customers, a sales room with accessory show cases, a large stock room and other service facilities.

Jim, in addition to being distributor for Cessna, and stocking a large supply of replacement parts for aircraft, engines, radios, instruments, etc., will handle service and maintenance, rent-a-plane and contract charter accommodations. Under the rent-a-plane arrangement, for instance, a Cessna 140 may be chartered for a whole day for only $25.00, fueled and ready to go without any strings attached. All additional gas and oil required is bought by the user and he may fly the plane where ever he wishes and for as many hours during the day he desires. Under the contract charter arrangement, Welsch supplies an airplane and pilot on call to the customer without delay or red tape. Company executives have the "ownership" advantage without having to invest in the airplane. Welsch also offers 24 hours air-ambulance service.

Fixed-Base Briefs

Reginald Collins and **G. S. Shelldal** have established at Oakland Municipal Airport a new maintenance and repair firm known as Oakland Airmotive Co. . . . **Helicopter Services of California,** based at Oakland Airport, has signed a fire-fighting contract with the U. S. Forestry Service.

The operators of **Colville (Wash.) Municipal Airport** are utilizing their spare time and a forgotten corner of a hangar to commercially build aluminum alloy boats 12 to 14 feet in length.

Bridgeport Flight Service, is the new fixed-base operator at Bridgeport (Conn). Municipal, replacing Bridgeport Flying Service, which went into a receivership and ceased operations July 1. Outfit has two Piper Cubs, a Cessna 140 and a PT-19 and expects to acquire several other ships.

Douglas-Tahoe Flying Service has taken a three-year lease on the Douglas-Tahoe (Nev.) Airport, paying the county $1 a year and assuming all maintenance and operating costs and the cost of any improvements made to the field.

Eastern Flight Corp. and **Eastern Industries Corp.,** manufacturers of polishes, paints and lacquers used in the aircraft manufacturing industry, have leased the Wallkill Airport, near Kingston, N. Y.

A new twist in promoting group cross-country flights is being tested by **Airgo, Inc.,** at Smith Field, Fort Wayne, Ind. Airgo has acquired a library of information on fly-in vacation and recreation areas in Michigan and Wisconsin and features special week end flights on its "Vacation Flight Board." Each group flight is supervised by a competent pilot. Special consideration is given to any student or inexperienced cross-country pilot who wishes to join.

Rick Helicopters, Inc., Los Angeles, have been given a year's contract to patrol the 2,500-mile Bonneville, Wash., power system.

Oakland Municipal Airport's fourth annual Aviation Day on October 2 will feature an efficiency contest planned by Aircraft Owners and Pilots Association which will have four legs totaling 150 miles. The three airports to be turning points will not be announced until one hour before the contest. Winners will be determined by amount of gasoline used as will as speed over the course.

Alabama Department of Aeronautics is continuing its program of air marking with 125 to 150 markers planned for the immediate future. Last year the Department painted 319 standard markers in 274 towns and at 45 airports.

Stinsons for Ecuador Feeder

A feeder-type air operation has been started in Ecuador by Aerovias Nacionales del Agro, which has two four-passenger Stinsons and plans to acquire three more. Future plans include a possible connection with Faucett airlines at Tumbez and eventual development of an air freight service.

Round-the-World Attempt

Jack Brazil, a World War II fighter pilot, plans to begin his around-the-world flight early in September, flying the Johnson "Bullet," a single-engined, four-place plane just entering the commercial market.

The plane is being equipped at Tyler, Tex., with auxiliary fuel tanks that will carry 300 gallons of gasoline in addition to normal 56 gallons.

Brazil hopes to top Bill Odom's non-stop lightplane distance record on one of two hops: either from Oklahoma City to Rome (about 5 500 miles) or from Tokyo to Oklahoma City (about 6,300 miles.)

CAB Proposes Longer Helicopter Training Times

Failure of a large percentage of students to pass written examinations has resulted in a CAB proposal to increase the ground school requirements for helicopter pilot rating from the present 100 to 150 hours. This would mean a change in part 50 of the Civil Air Regulations.

The same amendment would affect flight time for both helicopter and glider private and commercial ratings. For the helicopter rating 35 hours of flight would be required, and for commercial, 160 hours. For glider private pilot, eight hours of flight, and 160 for commercial are proposed.

S. African Dollar Shortage Hits Piper Parts Import

South African government's refusal to allocate dollars toward importation of parts for South African-built Piper planes has caused Pretoria Light Aircraft Co., licensees, to shelve plans for manufacture of Vagabond and Clipper airframes. It is estimated that about $1600 per plane is needed for purchase of engines, instruments and wheels in this country.

For this same reason, the several hundred American lightplanes flying in or around South Africa may be grounded when the present supply of replacement parts is exhausted. Particularly affected are Piper products, which represent 52% of private equipment in South Africa.

Swift-125 Manual: Copies of an operator's handbook and maintenance manual for the Swift-125 airplane are available from Texas Engineering and Maintenance Co., Dallas. Owners of TEMCO Swifts may have it free by writing and giving NC and serial numbers. Non-owners or owners of Swifts delivered by Globe Aircraft Co. may obtain copies at $4.00 by writing the Swift sales department at TEMCO.

"DOMESTIC MAIL RATE DECISIONS"

By FREDERIC P. KIMBALL

A detailed summary and analysis of recent C.A.B. Opinions setting or proposing permanent mail rates for domestic trunklines and feeders, written from an economic viewpoint. A complete guide, outlining all adjustments, disallowances and policy statements, arranged by subject matter, rather than by carrier, to permit direct carrier-by-carrier comparisons on each subject.

DOMESTIC DECISIONS SURVEYED

Braniff	Empire	Northeast
Capital	Florida	Pioneer
C.&S.	Inland	Southwest
Continental	Mid-Continent	West Coast
Delta	Monarch	Western

ARRANGEMENT BY SUBJECTS

Decisions Summarized	Direct Maintenance Expense
Comparable Carriers	Depreciation—Flight Equipment
Scheduled Services	Ground and Indirect Expense
Flight Equipment	Miscellaneous Costs
Non-Mail Revenues	Recognized Investments
General Operating Expenses	Detail of Investments
Flying Operations Expense	Determination of Rates

The report contains 258 pages, mimeographed, legal size, single spaced. Copies may be obtained directly from the author, at $175.00 each.

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Flying Fisherman & Hunter Clubs Pay Off For Eastern

By ERIC BRAMLEY

When you note that fishermen spent $1,350,000,000 and hunters $750,000,000 last year for such things as equipment, clothing, licenses, miscellaneous items—and *transportation*, it's easy to see why Eastern Air Lines has a Flying Fisherman Club and a Flying Hunter Club. They're tie-ins with a couple of really big businesses that have evidently paid off handsomely both in revenues and in publicity.

The Flying Fisherman Club has been going along quietly as one of the industry's most effective sales promotion ideas for a long time. Only a few weeks ago, it was 14 years old. The Flying Hunter Club, much newer, is three years old.

EAL has never had much time for anything that didn't pay off. So, although figures aren't available, it's to be assumed that the 2,000 members of the clubs (with a probable 500 more to be added this year) make a handsome contribution to EAL revenues. And the awards of the various club trophies, and the club certificates that hang on numerous office walls keep EAL's name before a lot of people.

In the summer of 1935, EAL took a group of outdoor writers to Florida on a fishing trip. It was during that trip that J. Hammond Brown, outdoor columnist of the Baltimore *News-Post*, wanted to know why EAL didn't give a little special recognition to the air-and-fishing-minded folk. Maybe a club of some kind, in which dues would be one fish (like a sailfish, marlin or tarpon) caught, attested and registered. Inducement would be a contest, with prizes for the best catches each year.

EAL took up the idea and started the club, in which "money cannot buy a membership." Here's how it works: You must fly to or from any point along the EAL system as a passenger. You qualify as a member when you have caught your first game fish. The fish will be weighed, measured and certified by a guide-boat captain, or other person authorized by EAL, who records the necessary details on the application blank. Most guide-boat captains in the principal game-fishing ports have been authorized by EAL to certify catches—and supplied with special identifying plaques posted on their boats. After the application is sent to EAL, you receive a membership certificate, suitable for framing.

The Flying Fisherman Club's creed is "to fish for the sport—to release my fish unless it's my first or a record fish—to use the lightest possible tackle, where possible, compatible with the species of fish sought—and always to be as much of a sportsman as the game fish I seek to outfight."

If you catch a big one, you may be eligible for some of the yearly awards, which aren't exactly small peanuts as far as fishermen are concerned. Capt. Eddie Rickenbacker, EAL president, gives two large sterling silver trophies, one a replica of a sailfish, the other of a tarpon, for the winning catches. The winners keep them for one year, or retain them permanently if they win three times. In addition, they get bronze replicas of their catches. Winners in the marlin-tuna-bonefish-barracuda-dolphin-kingfish class receive replicas, as do those in the fresh water division.

The Flying Hunter Club, started in 1946, follows the same general pattern as to qualifications, membership and awards. In one division—migratory birds—EAL was stumped for an award because the bag is not measured by weight or number taken. So an idea was hit upon that won't exactly drive business away: "To the member of the Flying Hunter Club who makes the greatest number of trips over Eastern Air Lines for the purpose of hunting migratory and upland game birds, a handsome bronze piece depicting these birds in flight will be awarded as a permanent possession trophy."

Organizing the club and seeing that it functions smoothly and is well known is a big job. Getting hundreds of boat captains and guides authorized was no small task in itself. Keeping the club's names before fishermen and hunters entails securing tie-ins with tournaments, advertising and getting listings in various sports publications, joining the International Game Fish Association, etc. Members of the clubs receive letters (on special club stationery) from H. Kurtz Henley, EAL's manager of sports events, and they're on the list for news releases, memo pads, etc.

Available through any EAL office for showing at clubs, schools, etc., is a 16 mm. color and sound movie, telling the story of the businessman's fishing trip to Florida, Bahamas, etc. And there may be another movie available in the fall, on both fresh and salt water fishing, and hunting.

Behind all this, of course, is one aim—to sell more people on using EAL. Henley persistently reminds EAL employes of this fact. He'll put a couple of sentences in the EAL newsletter, listing how much hunters and fishermen spend, and adding: "Remind them that they won't lose a day on the water or in the woods if they fly Eastern to the country's leading game sports." Or, a memo will go out to all traffic and sales managers and station managers: "I will continue to send you fishing guides, folders, brochures, etc., describing the best fishing and hunting camps, lodges and areas so that your offices will have this information available for distribution. Please use this literature—*don't* stuff it under a counter or away in a closet—any one of these folders may describe just the place that one of your prospects is looking for, and that means another customer for Eastern . . . Mail them to your prospects, use them in displays, distribute them to your travel agents and sporting goods dealers, etc."

And that just about sums it up. The clubs may "mean another passenger for Eastern." They're sales promoters and they bring in business (much of it "repeat" business) and, as Capt. Eddie would say, "that's common sense."



LINEUP OF TROPHIES awarded in EAL's Flying Fisherman and Flying Hunter Clubs. Winners of the sterling sailfish and tarpon awards keep them for one year. All winners in both clubs get bronze replicas to retain permanently.

Traffic Up But Load Factors Stay Down

While traffic on most of the domestic trunk airlines in the first six months of this year was well up over a year ago, official figures filed with the Civil Aeronautics Board showed virtually no improvement in passenger load factors. (See tabulation, page 56 for January-June summary.)

An increase of more than one million passengers and nearly 500 million revenue passenger miles during January-June was counter-balanced by an increase of 700 million available seat miles. As a result the domestic passenger load factor for the first half of 1949 was 59.92%, compared with 59.70% for same period of last year.

The number of passengers flown was the highest for any comparable period in airline history. The total of 6,952,994 represented a gain of 18.5% over 5,868,385 a year ago.

In revenue passenger miles, as well as in total passengers, American Airlines led the field, flying 729,808,000 revenue passenger miles in the 1949 first-half, as against 572,644,000 las year. Eastern Air Lines showed a decline from 529,415,000 revenue passenger miles to 529,096,000, while its competitor, National, which a year ago was hit by strikes, increased its share of the traffic from 37,127,000 passenger miles to 89,384,000.

Traffic Notes

American Overseas Airlines on Nov. 15 will replace DC-4's with Constellation "luxury sleeper lounge service" to Scandinavia. Passengers will be limited to 23 due to the sleeper lounge accommodations which "provide more cabin space per passenger than any other commercial trans-Atlantic airliner." There will be no extra charge for the service, which will mark the first time for Constellations on the Scandinavian route.

Because of foodstuff shortage in Hawaii caused by the waterfront strike, **Northwest Airlines** has adopted a special cargo tariff on meat shipments from Seattle-Tacoma and Portland to Hawaii. Rate is 30c per pound, with a 100-lb. minimum, compared with former rate of 57c.

Capital Airlines has leased the space in Norfolk occupied for the past 20 years by the Pennsylvania Railroad. Effective Jan. 1, the company will use the space on the first floor of the Royster Bldg., to combine ticket reservations and district sales offices.

Trans-Caribbean Air Lines has distributed a circular to ticket agencies announcing "domestic service to all points in the United States and its possessions." The announcement advises agents it will pay 20% commission on all tickets sold, and lists approximately 50 cities throughout the country which Trans-Caribbean says it will serve on an irregular basis, with more to be added later.



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Airport Facilities for Cargo Studied by AOC Group

By KEITH SAUNDERS

A special air cargo committee has been set up by the Airport Operators Council to determine what facilities must be provided to handle the developing air freight business, what procedures should be employed and what compensatory rates charged by airports.

The committee, chairmanned by Oscar E. Hewitt, Commissioner of Public Works for the City of Chicago, held an initial meeting at Chicago last month and will hold others at intervals of about 60 days. The next one is tentatively scheduled to be held at St. Louis.

While final principles have not been agreed upon, the committee has reached general agreement on the following points:

1. Some air freight in passenger planes may be expected for another five years and airports should make temporary plans with this in mind.
2. Where economically feasible, airport freight handling areas should be arranged near passenger terminals during this transition period.
3. After a short transition period, the airlines should plan for service through one air freight terminal only, and in larger cities this should preferably be at some airport other than the one where passengers and mail are accommodated.
4. Air freight handling on airports by qualified concessionaires (preferably not more than two) is favored, with efficient procedures to be approved by airport management.
5. Rentals of buildings and uncovered freight handling space will be in line with terminal area covering charges at each airport.
6. Study will be given by the committee to results obtained by some AOC members who are collecting 3/10 of a mill per pound of cargo handled by the air freight handling concessionaire.
7. The committee is opposed to any sort of sliding-scale fee basis for use of airport landing areas by freight planes.
8. The committee favors a per-pound fee basis for use of airport landing areas and will study results of some members who have adopted a fee of 30c per 1000 pounds of licensed gross weight of cargo planes.

Airlines Consulted. The committee made a canvass of air carriers for suggestions as to air freight facilities, procedures and rates, but reported that "no convergent trend of airline opinion was found."

The committee heard of instances where airports had offered space for the handling of airfreight, some of it in heated buildings at a rate of 85c per square foot, but the airlines were not interested, so the reports went, and permitted freight to be subjected to rain and sun.

The committee took note of the high costs to air carriers of surface cartage between combinational passenger-cargo planes unloaded or loaded at passenger terminals and cargo planes loading or unloading at freight terminals, and expressed the belief that air carriers will be forced to the conclusion that it is uneconomical to move air freight in the same planes in which passengers and mail are transported.

The AOC committee, cognizant of the CAB estimate of a domestic airfreight potential of a billion ton-miles annually, expects to pursue its studies of the problems such volume will bring to airport operators. It is hopeful the airlines will cooperate in their own interests.

Besides Chairman Hewitt, the committee is composed of: Louis Inwood, director of the Kansas City Department of Aviation; C. C. Thompson, executive secretary of AOC; John Berry, commissioner of airports, Cleveland; Robert Aldrich, director, Minneapolis-St. Paul Metropolitan Aviation Commission; Conway Briscoe, director of public utilities, City of St. Louis; George Coker, director of aviation, City of Dallas; and G. D. Albrecht, manager of Memphis Municipal Airport.



MEMBERS OF AOC's special air cargo committee are, left to right, standing: Louis R. Inwood, director of the Kansas City Department of Aviation; Cyril C. Thompson, executive secretary of AOC; Robert Aldrich, director, Minneapolis-St. Paul Metropolitan Aviation Commission, Conway Briscoe, director of public utilities, St. Louis, and John Berry, commissioner of airports, Cleveland; seated: G. D. Albrecht, manager of Memphis Municipal Airport; Oscar E. Hewitt, Commissioner of Public Works for City of Chicago, committee chairman.

All-Freight Airlines Open Certificated Service

Certificated operations by all-cargo carriers were begun on Aug. 12, after the U. S. Court of Appeals for the District of Columbia dismissed American Airlines' petition for a stay and failed to act on a similar petition filed by Eastern Air Lines. Judicial review of the CAB's decision, however, is yet to come.

Slick Airways claimed the first transcontinental flight by a certificated all-freight airline when one of its C-46's took off from Newark Airport one minute after the certificate became effective. The plane carried 12,000 pounds of dresses, machine tools, and automotive parts for next-day delivery to California consignees.

Earl Slick, president, stated that the certificate permits the company to go ahead with long-range development plans. He predicted that when his company can get new 300 mph equipment and can offer air freight service into the 27 new cities awarded it by CAB and not presently being served, "we should be well on our way toward carrying the one billion ton mile air freight potential foreseen by the Board when it handed down its decision."

Slick was planning to activate service to five new points in late August: Boston, Cincinnati, Cleveland, Pittsburgh, and Kansas City.

Traffic Upswing. Both Slick Airways and The Flying Tiger Line have re-

ported a good upturn this year in air freight traffic eastbound out of California. George Cussen, vice president of the Flying Tigers, stated that since early this year the eastbound directional flow of freight has been balancing out the traditionally heavier westbound volume.

In one two-week period in July, eastbound tonnage out of Los Angeles was reported so heavy that the Tigers turned over 17,000 pounds to Slick and United Air Lines, because it had no space on its regular flights.

Loads departing from Los Angeles, Cussen said, actually have been heavier than loads out of New York, running 17,000 to 18,000 pounds a day out of Los Angeles to about 15,000 pounds a day from New York. Total ton-miles just about balance because there is little en route pickup on eastbound flights to offset shipments off-loaded at intermediate points, whereas the opposite is true westbound.

Poundage volume carried out of California by the Tigers for the first seven months of this year were repoted as follows by Robert W. Prescott, FTL president: January 269,860; February, 399,040; March, 495,700; April, 491,620; May 405,740; June, 385,640; July 290,560.

Net Profit. Prescott reported a net profit of $123,619 for the fiscal year ended June 30, compared with a loss of $349,000 in the previous year. The report enabled the Flying Tigers to claim the first profitable operation by an air freight carrier.

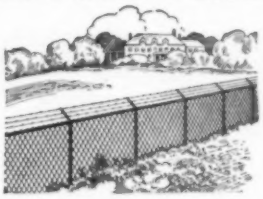
New Cargo Loading Patents Obtained by Hlobil

The former president of Columbia Aircraft Industries, J. S. J. (Bill) Hlobil, has obtained patents on the University Cargo Aircraft System, an aircraft design which combines cargo type aircraft fuselages with bodyless, powered carrier aircraft. Through a unique system of fasteners which join the aircraft and cargo body, Hlobil is able to maintain the proper center of gravity without regard to basic loading.

To distinguish the various parts of his system he has named the cargo containers Cargons, the powered carrier aircraft, Aerons; and the simple attaching mechanism is called the Cargo-Grip. The Cargo-Grip would be universal equipment used by any manufacturer licensed to use the system and would therefore permit the Cargon of one manufacturer to be used interchangeably with the Aeron of another.

The aircraft would be of conventional design except that it would require four wheels to provide stability on the ground with the Cargon detached. Any number of shapes and sizes of Cargons could be used as dictated by operational needs.

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AIRPORT FENCE



Stewart Style 3TH Chain Link Wire

Protects property and equipment. Controls crowds. Prevents injury to spectators. Stewart Fence is available in a wide range of styles, heights and weights in both Iron and Chain Link Wire to meet every requirement. Other Stewart products for airports include: Steel Folding Gates, Wire Mesh Partitions, Wire Window Guards, Settees, etc. When writing for literature please mention products in which you are especially interested.

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WRITE FOR AIRPORT LIGHTING CATALOG

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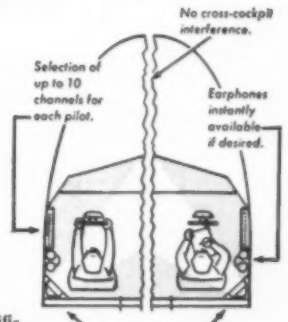
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LESS PILOT FATIGUE
with the Type F-11 Isolation Amplifier
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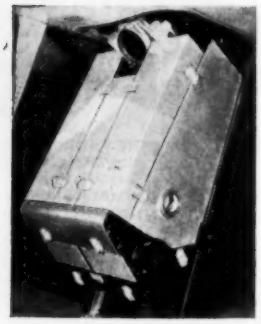
The new A.R.C. Isolation Amplifier performs two important radio control functions that have long presented problems. (1) Each pilot has **independent** selection of up to ten audio input channels in **any combination**—without cross-cockpit interference. Radio functions may be delegated so that each pilot works at peak efficiency in complex navigational and communication situations. (2) It operates individual cockpit speakers, with earphones instantly available if desired. Since the CAA no longer requires wearing of headphones when cockpit speakers are installed, the A.R.C. Isolation Amplifier relieves pilots of considerable discomfort and fatigue—particularly in hot weather and on long flights.

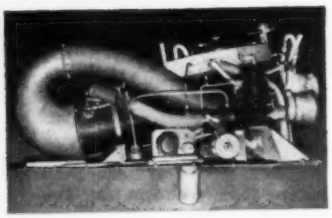


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6000 AIRPLANE HOURS





Left: pair of Janitrol heaters serve in an assembly developed by TWA for Stratoliners. Above: Janitrol heater used in TWA's Constellation (049) fleet.

TWA's Mr. E. T. Huff, Manager, Line Maintenance and Engineering, reports "TWA's experience with (Janitrol's) model 56A15 heater installed in the (Stratoliner) package has been entirely satisfactory with regard to performance and economy."

Leading airline maintenance personnel like Janitrol heaters because they rarely require more than routine inspection and servicing—because servicing is quick and easy—and because standard parts are readily available. Write for Janitrol's new service publication "Aircraft Heating Digest," giving your title, please. Address "The Digest," 400 Dublin, Columbus, Ohio.

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with the whirling flame

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TECHNICAL LITERATURE

Drill Press Feeds: The Bellows Co., 222 W. Market St., Akron, Ohio, is circulating a 16 page brochure, DF-105R, describing the "Controlled-Air-Power" drill press feeds and actual installations where reports indicate production increases between 40% and 500%. Copies of this fully illustrated booklet can be obtained by request addressed to W. C. Richards, Jr.

Face Protection: Mine Safety Appliance Co., Braddock, Thomas and Meade Sts., Pittsburgh 8, Pa., has published a four page illustrated pamphlet describing the M.S.A. faceshield used for protection in handling acids, chemicals, against flying particles from sanding, grinding operations, etc.

Instrument Guide: H. B. Instrument Co., 2633 Trenton Ave., Philadelphia 25, Pa., has published a forty page instrument catalog providing a complete guide for plant and laboratory instruments. The catalog describes industrial thermometers, psychrometers, thermo-regulators, mercury-plunger relays, hydrometers, specific gravity or Baume Scales, etc.

Heat Treating: Selas Corp. of America, Philadelphia 34, Pa., has published a booklet, "Speed Heating of Metals by the Gradiation Process," describing the extension of gas combustion to new levels of usefulness in industrial processing. The 80 page illustrated booklet notes advantages of the process, considers application to different types of metal and joining methods.

Reference Handbook: The Aircraft Committee of the Munitions Board, has published a handbook which brings together engineering reference material for use by manufacturers of military and civil aircraft. The new handbook, entitled "Strength of Metal Aircraft Elements, ANC-5a," is available from the Supt. of Documents, Government Printing Office, Washington 25, D. C., for $1.25 each.

Steel Lifters: Purcel Enterprises, Inc., 3746 Kelley Ave., Cleveland 14, Ohio, is circulating a four-page pamphlet describing Gonser Grizzly Lifters, a series of precision made, hardened tool steel lifters in lifting capacities up to 4,000 lbs.

Tool Catalog: Sutton Tool Co., Dept. 000, Sturgis, Mich., is circulating a 24 page catalog describing special tools such as expanding mandrels, special spring chucks, milling machine adapters, collets, sleeves and chuck jaws and parallel products of Sutton's standard line. The booklet is Number 17.

Valve Parts: The Cooper Alloy Foundry Co., Hillside 5, N. J., has published a four page circular describing the names of valve parts, diagrammatic sketches of gate, globe, check and lever operated valves, etc. Booklet follows proposed designations of the Manufacturers' Standardization Committee.

Air Sampler: Mine Safety Appliance Co., Braddock, Thomas and Meade Sts., Pittsburgh 8, Pa., has published a four-page booklet describing the MSA electrostatic sampler for determining quantitative concentrations of airborne dusts, fumes and smokes.

Interference Simulator: The Office of Technical Services of the U. S. Dept. of Commerce has published a report titled "Design and Development of a Laboratory Model Standard Noise Generator," describing a device which simulates certain type of regular interference in the testing of radio equipment. Design and construction of the radio noise generator is described in sufficient detail to enable a manufacturer to produce similar noise generators. Report PB 97415, 168 pages, including photographs, diagrams and drawings, sells for $6.25 in microfilm form or $21.25 in photostat. Orders should be addressed to Library of Congress, Photoduplication Service, Publication Board Project, Washington 25, D. C. Checks or money orders should be made payable to the Librarian of Congress.

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Classified Advertising

The rates for advertising in this section are as follows: "Help Wanted," "Positions Wanted," "Aircraft Wanted or For Sale," and all other classifications $1.00 a line, minimum charge $4.00. Estimate bold face heads 30 letters and spaces per line; light body face 40 per line; box numbers add two lines. Terms, cash with order. Forms close 20 days preceding publication date. Rates for display advertisements upon request. Address all correspondence to Classified Advertising Department, AMERICAN AVIATION PUBLICATIONS, 1025 Vermont Avenue, NW., Washington 5, D. C.

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To lease with purchase option for period Dec. 15, 1949 to Mar. 15, 1950 two top-notch airliner DC-3's with all compliances for scheduled service. Island Air Ferries, Inc., MacArthur Airport, Bohemia, L. I., New York.

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Control kits which can be used to modify present Sikorsky S-51 helicopters to a simplified and stabilized control system are now available from the manufacturer. This system is the first step toward providing an automatic stabilizing arrangement of reasonable weight and positive action for this series aircraft, according to Sikorsky.

Using a 1/50 hp motor to pump hydraulic pressure, the control system minimizes pilot effort in flying the helicopter by making it possible to operate the cyclic pitch lever with a minimum of effort. Formerly it has been necessary to obtain directional control with a constant, tiring grip on this lever.

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(Telephone RAvenswood 8-1000)

U. S. Domestic Airline Traffic for June

AIRLINES	REVENUE PASSENGERS	REVENUE PASSENGER MILES	AVAILABLE SEAT MILES	PASSENGER LOAD FACTOR	MAIL TON-MILES *	EXPRESS TON-MILES	FREIGHT TON-MILES	TOTAL TON-MILES REV. TRAFFIC	AVAILABLE TON-MILES FLOWN	% AVAILABLE TON-MILES USED	REVENUE PLANE-MILES	SCHEDULED MILES	% SCHEDULED MILES COMPLETED
				%									
American	326,115	150,886,000	204,265,000	73.87	667,010	450,657	2,328,561	17,862,440	28,271,179	63.18	4,876,920	4,795,566	99.58
Braniff	54,759	18,526,000	34,328,000	53.97	88,313	67,687	75,309	2,003,726	4,179,459	47.94	979,529	955,222	99.82
Capital	122,815	37,281,000	61,706,000	60.42	82,752	127,612	500,717	4,274,444	7,865,980	54.34	1,801,720	1,745,557	99.52
Caribbean	6,175	443,000	1,164,000	38.06	580	. . . .	3,048	39,466	121,069	32.60	46,908	46,932	99.95
C & S	28,273	9,949,000	17,856,000	55.72	39,747	42,903	45,443	1,080,168	2,080,799	51.91	656,269	656,746	99.72
Colonial	19,659	5,160,000	7,742,000	66.65	7,107	7,281	10,388	531,993	1,011,312	52.60	368,388	350,290	99.87
Continental	17,391	6,478,000	14,207,000	45.60	17,975	8,557	33,874	681,151	1,451,846	46.92	485,825	484,050	99.94
Delta	46,983	17,481,000	31,298,000	55.85	67,868	60,072	140,430	1,946,779	4,353,697	44.72	1,082,499	1,084,446	99.80
Eastern	206,517	87,172,000	146,018,000	59.70	353,490	271,104	522,734	9,991,907	20,624,743	48.45	4,306,033	4,285,784	99.85
Hawaiian	27,085	3,686,000	5,232,000	70.45	5,661	10,403	66,479	392,706	621,102	63.23	245,722	187,524	98.13
Inland	8,071	3,090,000	4,622,000	66.85	9,812	5,689	12,356	323,543	484,349	66.80	229,713	228,860	99.72
NCA	33,102	9,557,000	15,742,000	60.71	26,833	19,101	26,678	987,386	1,799,095	54.91	749,623	737,672	99.69
National	23,162	13,024,000	29,216,000	44.58	39,342	33,827	84,087	1,481,163	4,024,672	36.80	836,416	835,921	99.65
Northeast	33,879	6,473,000	11,864,000	54.56	6,124	6,158	19,990	616,889	1,196,351	51.56	371,621	360,934	99.62
Northwest	76,474	46,602,000	63,666,000	73.20	202,462	150,171	306,337	5,132,938	7,932,541	64.71	1,701,989	1,615,816	99.77
TWA	149,111	102,922,000	138,875,000	74.11	748,986	399,656	910,869	11,945,326	17,643,856	67.70	4,441,972	4,292,225	99.81
United	227,668	138,026,000	170,193,000	81.10	894,332	474,972	1,859,374	16,427,488	25,596,121	64.18	4,803,337	4,621,155	99.85
Western	24,711	9,534,000	18,113,000	52.64	21,122	22,303	32,281	987,468	1,933,700	51.07	525,455	519,926	99.21
TOTALS	1,431,950	666,290,000	976,107,000	68.25	3,239,516	2,157,713	6,978,955	76,707,481	131,191,871	58.92	28,509,939	27,804,626	99.73

* Includes air parcel post.

U. S. Domestic Airline Traffic for Jan.-June

AIRLINES	REVENUE PASSENGERS	REVENUE PASSENGER MILES	AVAILABLE SEAT MILES	PASSENGER LOAD FACTOR	MAIL TON-MILES *	EXPRESS TON-MILES	FREIGHT TON-MILES	TOTAL TON-MILES REV. TRAFFIC	AVAILABLE TON-MILES FLOWN	% AVAILABLE TON-MILES USED	REVENUE PLANE-MILES	SCHEDULED MILES	% SCHEDULED MILES COMPLETED
				%									
American	1,554,001	729,808,000	1,097,925,000	66.47	4,441,299	2,420,918	14,409,191	92,214,110	152,163,088	60.60	26,738,941	26,736,376	97.17
Braniff	284,169	95,042,000	181,933,000	52.24	522,145	371,099	472,372	10,471,499	22,141,508	42.77	5,568,722	5,694,126	96.64
Capital	558,411	163,769,000	322,743,000	50.74	497,307	733,214	3216,836	20,089,526	42,327,732	47.29	9,794,534	9,861,330	95.89
Caribbean	45,602	3,317,000	7,738,000	42.86	4,096	. . . .	16,675	287,210	732,389	39.21	284,445	317,243	98.55
C & S	146,905	52,575,000	95,681,000	54.94	262,436	245,110	256,380	5,806,452	11,124,481	52.19	3,640,502	3,755,294	95.49
Colonial	84,734	22,654,000	37,781,000	59.96	46,208	26,589	53,679	2,385,110	4,900,702	48.67	1,802,376	1,822,857	95.82
Continental	85,728	30,659,000	77,509,000	39.55	103,785	46,220	175,318	3,262,430	7,966,686	40.94	2,850,076	2,873,791	98.12
Delta	263,472	110,328,000	186,365,000	59.19	458,637	331,388	780,434	12,191,218	25,568,965	47.68	6,402,965	6,550,729	97.14
Eastern	1,123,719	529,096,000	897,069,000	58.98	2,497,905	1,671,777	4,564,867	63,514,920	132,214,268	48.03	26,808,141	27,076,322	97.30
Hawaiian	151,518	20,898,000	30,289,000	68.99	27,876	66,975	250,931	2,106,960	3,408,296	61.79	1,368,743	1,115,285	97.30
Inland	38,989	13,927,000	24,694,000	56.39	58,097	31,960	60,791	1,483,939	2,573,607	57.63	1,247,172	1,284,700	96.49
NCA	164,218	48,668,000	85,609,000	56.84	154,406	91,683	160,908	5,068,837	9,288,175	54.56	4,078,343	4,157,872	96.51
National	153,401	89,384,000	187,434,000	47.68	301,305	278,520	628,915	10,325,296	26,442,052	39.04	4,871,594	4,842,353	98.09
Northeast	142,242	26,884,000	56,384,000	47.68	44,119	34,797	105,642	2,613,523	5,659,890	46.17	1,792,668	1,912,927	91.84
Northwest	323,127	174,118,000	314,116,000	55.43	1,183,545	744,907	2,094,018	20,945,369	39,227,498	53.39	8,611,003	8,725,498	96.55
TWA	677,595	450,266,000	768,139,000	58.61	4,591,946	2,208,277	5,664,535	55,758,107	97,785,517	57.02	25,052,374	25,284,338	95.05
United	1,013,774	595,597,000	880,497,000	67.64	4,910,285	2,822,368	10,912,895	75,800,728	132,818,597	57.07	24,933,950	24,909,763	97.04
Western	141,389	50,821,000	101,042,000	50.29	169,938	117,414	226,916	5,376,814	10,928,907	49.19	2,969,850	2,948,667	98.27
TOTALS	6,952,994	3,207,811,000	5,352,948,000	59.92	20,271,335	12,243,216	44051,303	389,702,048	727,272,358	53.58	158,816,399	159,869,471	96.69

* Includes air parcel post.

U S. International Airline Traffic for June

AIRLINES	REVENUE PASSENGERS	REVENUE PASSENGER MILES	AVAILABLE SEAT MILES	PASSENGER LOAD FACTOR	U. S. MAIL TON-MILES *	FOREIGN MAIL TON-MILES	EXPRESS TON-MILES	FREIGHT TON-MILES	TOTAL TON-MILES REV. TRAFFIC	AVAILABLE TON-MILES FLOWN	% AVAILABLE TON-MILES USED	REVENUE PLANE-MILES	SCHEDULED MILES	% SCHEDULED MILES COMPLETED
				%										
American	7,162	5,325,000	8,567,000	62.16	11,365	4,191	. . . .	93,467	678,794	1,169,693	58.03	180,522	175,728	99.44
Amer. O'Seas	8,286	19,868,000	29,106,000	68.26	113,214	39,006	211,581	. . . .	2,468,632	3,568,472	69.18	737,968	709,725	99.46
Braniff	1,330	2,779,000	6,486,000	42.85	2,003	793	. . . .	16,392	288,945	955,170	30.25	139,475	139,475	100.00
C & S	2,299	2,697,000	6,421,000	42.00	779	239	. . . .	22,482	304,672	770,490	39.54	128,415	128,415	100.00
Colonial	1,150	905,000	2,339,000	38.66	769	91	. . . .	1,612	97,861	343,319	28.50	53,170	54,716	97.17
Eastern	1,820	1,893,000	3,056,000	61.94	5,864	. . . .	. . . .	63,540	270,911	384,540	70.71	62,400	62,400	100.00
National	4,786	1,397,000	2,660,000	52.52	1,130	. . . .	27,317	. . . .	171,115	421,174	40.63	60,962	48,780	100.00
Northwest	3,888	7,878,000	12,377,000	63.65	134,281	13,723	8,373	337,751	1,336,074	1,942,586	68.78	484,520	477,136	98.79
Panagra	7,110	7,757,000	15,874,000	48.87	27,475	18,705	141,337	. . . .	1,037,772	2,227,468	46.59	468,489	490,301	94.58
Pan American														
Latin Amer.	58,018	54,690,000	90,184,000	60.64	217,151	57,030	1,318,656	61,312	7,095,193	12,872,471	55.12	2,378,469	2,366,364	99.41
Atlantic	12,855	32,801,000	53,075,000	61.80	232,124	77,642	766,495	906	4,604,471	8,098,490	56.86	1,560,109	1,537,204	96.64
Pacific	9,075	25,981,000	34,300,000	75.75	426,274	67,819	560,311	. . . .	3,638,352	5,140,018	70.78	1,180,332	1,159,012	99.28
Alaska	4,108	4,103,000	6,971,000	58.86	39,385	. . . .	397,411	. . . .	862,023	1,574,060	54.76	234,875	214,905	99.99
TWA	10,586	29,901,000	43,715,000	68.40	250,236	97,370	504,121	. . . .	4,145,143	6,396,145	64.81	1,314,644	1,255,939	99.78
United	3,320	7,968,000	8,954,000	88.99	48,057	. . . .	32,987	. . . .	915,929	993,233	92.22	206,400	206,400	100.00
TOTALS	135,793	205,943,000	324,085,000	63.54	1,510,107	376,609	3,968,589	597,462	27,915,887	46,857,329	59.57	9,190,750	9,026,500	98.72

* Includes air parcel post.

NOTE: Data in above tabulations were compiled by American Aviation Publications from monthly reports filed by the airlines with the Civil Aeronautics Board. Figures for American Airlines include that carrier's service to Mexico but not to Canada; for Braniff to South America; C & S to South America; Colonial to Bermuda; Eastern to Puerto Rico; National to Havana; Northwest to Orient, and United to Honolulu. Operations of U.S. carriers into Canada are included in domestic reports to CAB, in accordance with CAB filing procedures.

WINGS OF YESTERDAY

25 Years Ago

During the 31-day test of the through New York-San Francisco Air Mail service in July, 1924, an average of 39 hrs. and 49 min. westbound, and 36 hrs. and 21 min. eastbound was maintained.

•

The Round the World Flight of American airmen covered 22,000 miles from Seattle to Boston in 153 days, using 300 flying hours.

•

The British Air Ministry issued a regulation compelling all aircraft capable of carrying 10 or more persons including the crew to be equipped with wireless apparatus.

10 Years Ago

(In AMERICAN AVIATION)

Richard C. du Pont, president of All American Aviation, operator of two pick-up routes, submitted to CAA and the Post Office Dept. a program for the development of a comprehensive air feeder system throughout the country.

•

The Air Safety Board, in an accident report involving Braniff Airways, recommended that the airlines install full-feathering propellers and urged that CAA help the project through air mail pay covering the added expense.

•

Al Menasco, designer of airplane engines bearing his name, retired from active participation in aviation to become a dealer for Ford automobiles in Culver City, Calif.

LETTERS

Had Agents First

To the Editor:

In looking over *American Aviation* for August 1, I note in one of your editorials you bring up the point that Mid-Continent has secured some fixed-base operators in Iowa to act as general agents. I would like to point out that we have been doing this at our Pine Bluff station since the 5th of June and it is working out very satisfactorily.

S. A. STEWART, President
Chicago & Southern Air Lines
Memphis, Tenn.

Skytours

To the Editor:

I want to thank you for the excellent article "Skytours Plan Promotes Light Plane Business" which appears in the August 15 issue of *American Aviation*.

During the past three years' toil, we all were confident the work we were doing was a must in the field of aviation. However, you surely realize how much it cheers and warms our hearts to see the acceptance and recognition it is receiving today. Every Skytourist and every person whose name appears in the article has definitely contributed to its success and the future of more and better light plane usefulness.

Already we are receiving many favorable comments on your article.

EVERETT J. WOOD
President, Skytours, Inc.
Swarthmore, Pennsylvania

Behncke and Ardmore

To the Editor:

We were chagrined to read of Arthur H. Courshon's allegation that American's pilots are not all they might be. After reading the report of his press conference (August 15, p. 15) at which he said Dave Behncke put pressure on American to close the AATC at Ardmore, we checked with our Operations officials to get their reaction to this statement. We learned that:

1. The AATC was closed after completion of the Convair and DC-6 pilot training program. It was closed because our pilots had been checked out on the new equipment and no further large-scale pilot training need was anticipated.
2. The reference to Behncke is flatly untrue. Behncke did not force American to close Ardmore, nor did he put any pressure upon the company to grant senior pilots any rights for which they did not qualify.
3. Every pilot flying Convairs and DC-6s was required to pass stringent written and oral examinations, as well as to achieve a high degree of proficiency in flight training.

We thought you might be interested in the true facts in the case.

EDWARD DOHERTY
Assistant Director
American Airlines

Too Many Gripers

To the Editor:

"Your article, "Stop Dreaming and Sell," certainly hit the nail right on the head.

There are too many "gripers" in this business and it's time somebody took a good cut at them.

HOWARD V. GREGORY
Des Moines Flying Service
Des Moines, Iowa

Jackpot

To the Editor:

Being out in the territory so much of the time it is hard for me to keep up on my correspondence and while I'm late in doing it, I just had to write you on your editorial on "Stop Dreaming and Sell."

You've done a lot of things for private aviation and you've written a lot of fine editorials, but never anything to match this . . . Your editorial hit the jackpot.

CARL WOOTTEN
Wootten Aviation Industries
Orlando, Florida

What Others Say

"The American people have been flooded and deluged with supersonic speed blather, and guided missile nonsense . . . It is dangerous stuff because it leads our people to believe that we alone in the world possess magic weapons that can wipe out aggressor nations overnight . . . Our supersonic fighters are non-existent. They just don't exist in working form. The supersonic stuff you have been getting is all experimental machinery . . . It we were to go to war tomorrow, we'd be forced to use the tools of war we possess today—and they are all piston engine combat planes."—**Al Williams**, in his syndicated newspaper column.

"The ultimate in air transport is not far away. Automatic control is on the horizon. Oblivious to weather, air commerce will move when nothing else can move. The late war was catalyst to the trade of the skies."—**Gill Robb Wilson**, in the New York Herald Tribune.

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BOOKS

STRATEGIC AIR POWER, by Dr. Stefan T. Possony. Published by the Infantry Journal Press, 1115 17th St. NW, Washington 6, D. C. 308 pages. Price, $5.
See page 29 for review.

AIRCRAFT ENGINES OF THE WORLD, 1949 Edition. Edited and Published by Paul H. Wilkinson, 225 Varick St., New York City. 324 pp. Price not listed.

This new edition of Wilkinson's annual provides up-to-date detailed specifications of the latest engines in development throughout the world.

Of special interest is information on Russian jet activities. According to Wilkinson, Russia is developing a series of new jet engines with thrust ratings as high as 7,700 pounds. The most powerful of the series is identified as the M-018, a three-stage turbine engine weighing 4,850 pounds, giving it a weight-thrust ratio of 0.63 pounds. The engine is still in a very early stage of development.

Also identified in a round-up of Russian jets is two-stage turbine M-012 with a design thrust rating of 6,600 pounds. The M-012, also in an early development stage, will weigh 4,400 pounds, making its weight-thrust ratio 0.67 pounds.

Both are considerably heavier than present American production jets. General Electric's J-47 engine weighs 2,500 pounds, while the Allison J-33 weighs only 1,805 pounds.

Wilkinson indicates that Russia's jet activities are centered on axial type turbo-jets of German origin. Production engines include German B.M.W. 003's and Junkers Jumo 004's of advanced design. Present Russian production engines are developing in the neighborhood of 4,000 pounds thrust, Wilkinson says.

Booklets and Manuals

Air Age Manual: A teaching manual containing material to be introduced into the regular school curricula in Louisiana this fall is now being distributed by the State education department, which published the manual with the cooperation of the aeronautics divisions of the state department of public works and the Civil Aeronautics Administration. Book is titled "Louisiana Schools in the Air Age." State Superintendent Shelby Jackson said aviation material would be included in the curricula from the primary grades through college. Text of the manual was prepared under the direction of a committee appointed in 1947.

Aviation Text: An air age handbook for teachers in the Missouri public schools is being distributed by the state division of resources and development, aviation section, and the state department of education, division of public schools. Handbook was prepared under direction of Harold D. Weatherly, aviation education consultant, whose position was terminated recently due to budgetary reasons.

Technical Schools: National Council of Technical Schools, 2601 Sixteenth St., N. W., Washington, D. C., has released a four-page directory of technical institutes approved by the council. It contains information for vocational counselors, high school guidance instructors and others regarding technical training for industry.

OBITUARY

William H. Coverdale

William H. Coverdale, president, chairman of the board and principal stockholder of American Export Lines, Inc., died August 11 in New York at the age of 78.

He was instrumental in founding American Export Airlines, predecessor to American Overseas Airlines, and was a director of AOA for several years.

John A. Williams

John A. Williams, who was with Curtiss-Wright Corp. for more than 26 years and handled the Airplane Division's military contracts and subcontracting in Buffalo, N. Y., during World War II, was found dead Saturday in his automobile at Elma, N. Y., apparently a suicide. Williams joined Frederic Flader, Inc., of Buffalo after leaving C-W, but left Flader a few months before his death.

Col. Harry Gantz

Col. Harry Gantz, veteran Air Force flier (Pilot No. 14), died last Wednesday in Australia while on a world tour.





FINAL REHEARSAL BEFORE THE TAKE-OFF!

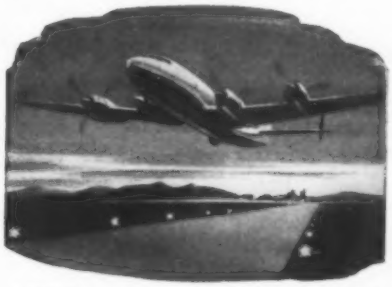
► This is the final rehearsal of a new Wright Cyclone before taking to the air.

► It has already passed through five preliminary stages... (1) *green* or first assembly; (2) *green* 5-hour stationary test-run; (3) complete dismantling and cleaning; (4) parts inspection; (5) parts reassembled into "final" engine.

► Now in its final test, sensitive recording instruments *check* and Wright technicians *log* the engine's operations from idle to take-off power. A calibrated wooden test club on the propeller-shaft absorbs power developed and forces cooling air across the engine.

► The hundreds of log-sheet entries include data on every phase of engine performance. Every Wright Cyclone passing the "production engine" test is ready to power *any* commercial or conventional military airplane in the world.

► Another example of the care with which the Wright Aeronautical Corporation produces aircraft engines to provide reliability in the air.



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